WMS-55PLUS2E

USER'S MANUAL

P/N: 205G0000WMS552, V1.0
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Acknowledgments

Greeting & Setup

Thank you for purchasing the WMS-55PLUS2E unit. We wish that this unit will be durable and reliable in providing your needs. Please follow the instructions below to ensure the unit continues to have high performance. Please read the user's manual carefully before performing the installation.
Please use the power cord designated for the product. When an extension cord is required, use one with the correct power rating. The cord must be grounded and the grounding feature must not be defeated. The product should be installed on a flat surface to avoid tipping. Space should be maintained between the back of the product and the wall for proper ventilation.

Unpacking

After opening the carton, there will be a unit with an accessory box and 2 stands (options). Examine the contents to see if there are damages to the unit and if all accessories are present.

Setting up

Please read this manual carefully and remember to keep this manual for future reference.

Safety Instructions & Cleaning

The unit has undergone various tests in order to comply with safety standards. Inappropriate use may be dangerous. Please remember to follow the instructions below to insure your safety during the installation and operating process.

Transporting & Placement of unit

1. *When moving the unit on a cart; be very cautious. Quick stops, excessive forces and uneven surfaces may cause the cart to overturn thus risking the unit to fall to the ground.*
2. *If the Monitor display unit does fall to the ground, immediately turn the power off and disconnect cords. Then contact a service technician for repairs. Continual use of the unit may result cause a fire or electric shock. Also, do not repair the unit on your own.*
3. *Having two or more people transporting the display unit is recommended. In addition, when installing the open frame by suspending it also requires two or more people.*
4. *Before suspending the unit, make sure the material used for suspension is sturdy and stable. If not properly suspended, the display unit may fall and cause serious injury to people standing nearby as well as to the unit itself.*
5. *If you wish to mount the display unit, remember to use only the mounting hardware recommended by the manufacturer.*

Electrical and Power Source Related

1. *This Monitor display unit must operate on a power source as shown on the specification label. If you are not sure what type of power supply used in the area, consult your dealer or local power supplier.*
2. *The power cords must not be damaged. Applied pressure, added heat, and tugging may damage the power cord.*
3. *The power cord must be routed properly when setup takes place. We advise that this aspect measure is to prevent people from stepping on the cords or while the unit is suspended to prevent flying objects from getting tangled with the unit.*
4. *Do not overload the AC outlets or extension cords. Electrical shocks or fires may occur from overloading.*
5. *Do not touch the power source during a thunderstorm.*
6. *If your hands are wet, do not touch the plug.*
7. *Use your thumb and index finger, grip firmly on the power cord to disconnect from the electrical socket. By pulling the power cord, may result in damaging it.*
8. *If the unit is not going to be in use for an extended period of time, remember to disconnect the unit.*
9. *Connect the unit to a power source with the same numerical value as spec. label shown. Please use only the power cord provided by the dealer to ensure safety and EMC compliance.*

Various Factors of Environment

1. *Do not insert objects into the openings.*
2. *Do not have liquids seep into the internal areas of the Monitor display unit.*
3. *Having liquids seep in or inserting objects into the unit may result in electric shocks from taking and/or short circuiting the internal parts.*

4. Do not place the Monitor display unit in the presence of high moisture areas.
5. Do not install the Monitor display unit in a wet environment.
6. Do not place near unit near heat generating sources.
7. Do not place the unit in a location where it will come in contact with fumes or steam.
8. Remember to keep the Monitor display unit away from the presence of dust.
9. If water has flow in or seep in, immediately disconnect the open frame unit. Then contact a service technician for repairs.

Ventilation Spacing

1. Do not cover or block the openings on the top and back sides of the display unit. Inadequate ventilation may cause overheating thus reducing the lifespan of the unit.
2. Unless proper ventilation is present, do not place unit in an enclosed area; such as a built-in shelf. Keep a minimum distance of 10 cm between the display unit and wall.

Cleaning the unit

(1) Remember to turn off the power source and to unplug the cord from the outlet before cleaning the unit.
(2) Carefully dismount the unit or bring the unit down from suspension to clean.
(3) Use only a dry soft cloth or clean room wiper when cleaning the LCD panel or touch screen surface. Use a soft cloth moistened with mild detergent to clean the display housing.
(4) Remember to avoid having liquids seep into the internal components.

Servicing, Repairing, Maintenance & Safety Checks

1. If the unit is not functioning properly, observe the performance level of the display closely to determine what type of servicing is needed.
2. Do not attempt to repair the Monitor display unit on your own. Disassembling the cover exposes users' to high voltages and other dangerous conditions. Notify and request a qualified service technician for servicing the unit.
3. If any of the following situations occur turn the power source off and unplug the unit. Then contact a qualified service technician
(a) A liquid was spilled on the unit or objects have fallen into the unit.
(b) The unit is soaked with liquids.
(c) The unit is dropped or damaged.
(d) If smoke or strange odor is flowing out of the open frame unit.
(e) If the power cord or plug is damaged.
(f) When the functions of the unit are dysfunctional.
4. When part replacement is needed. Make sure service technician uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. If unauthorized parts are used it may result in starting a fire, electrical shock and/or other dangers.

Battery Installation

Follow below instructions and notice the caution for replacing and disposing of the RTC Lithium battery CR2032 for safety consideration.
CAUTION:
There is danger of explosion, if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instruction.

The specification is subject to change without notice.

Version Change History

Date	*Version*	*Description*	*Remark*
2010/12/20	*1.0*	*First release*	

CONTENTS

Product Description 6
Package Contents 6
Specification 6
Installation 6
Dimension Drawing 33
System view and System Installation 35
Front View 35
Side View 36
Bottom View 37
Rear View 37
Visual inspection to ensure computer module connector is fully docking 38
System Software Installation 40
Installing the Drivers 40
Dual touch by IR TOUCH (USB interface), optional 40
Notice 40
Remote Controller 41
Functions 41
a. Turn on/off LCD display 41
b. Select display video signal source 41
c. Synchronize video input signal and AD board output signal 41
d. Adjust display setting 41
Navigating the OSD Menu 42
a. Display OSD main menu 42
b. Select the menu you want to adjust 42
c. Adjust the setting 42
d. Exit the OSD menu 42
Color/bright 43
Image setting 45
OSD menu 46
Signal Source 46
Special 47
Summary 47
Trouble Shooting 48
BIOS Setup 49
Block diagram 62
Jumper & Connector Definition 63

Product Description

The WMS-55PLUS2E is composed of TFT LCD panel display and industrial level computer. It is designed to meet the demanding performance requirements of today's business, public display and industrial applications.

It is ideal for applications such as

- *KIOSK*
- *Retail and restaurants*
- *Corporate communication*
- *Public signage*
- *Casino & gaming signage*
- *Medical information*
- *Financial centers & banks*
- *Government & military*
- *Education*
- *Entertainment venues*
- *Sports arenas*
- *Public transportation signage*
- *Advertisements LCD display applications.*

Open-frame series are available for system builder or integrators for the environment that has been decorated.

Package Contents

Before using this WMS-55PLUS2E unit, please make sure that all the items listed below are present in your package

1. *WMS-55PLUS2E unit*
2. *Power Cable x 1*
3. *Remote controller x 1*
4. *CD title (drivers, user's manual) x 1*
5. *Accessories of option parts*
6. *Screws for stands (M4xL10) x 8*
7. *Screws for VESA mount (M8xL12) x 9*

If you find that any item to be missing or appear to be damaged, contact your dealer immediately. DO NOT throw away the packing material or shipping carton in case you need to ship or store the LCD monitor in the future.

Specification

System

CPU	*Intel socket 775 C2D CPU, max speed: 2.66G, max power consumption 65W* *CPU list:* *CORE 2 DUO 2.66G E6700* *CORE 2 DUO 2.6G E4700* *CORE 2 DUO 2.4G E6600* *CORE 2 DUO 2.13G E6400* *CORE 2 DUO 1.8G E4300* *Celeron 800MHz 440*
FSB	*1066MHz / 800MHz / 533MHz*
Chipset	*Intel® Q965 chipset:* *•North bridge: Intel Q965 Graphic Memory Controller Hub (GMCH) (25W)* *•South bridge: Intel ICH8 I/O Controller Hub (5W)*
VGA	*Intel Q965 integrated graphic subsystem (GMA3000)*
Audio	*Realtek ALC268 AC97 Audio Codec 2+2 channels*
LAN	*Realtek 8111B 10/100/1000 Mbps LAN x 2*
Memory	*Two 240-pin DDRII 533/667/800 DIMM sockets, dual channels, supports max. 4 GB system memory*
I/O	*Intel ICH8 I/O controller Hub*
Serial ATA	*SATA II, Data transfer rates up to 3.0 Gb/s (300 MB/s), 2 on mother board, 2 on connection board*
Serial port	*RS232 x 1 / RS232,422,485 x 1*
Parallel port	*Compatible with IBM parallel port x 1* *Support Enhanced Parallel Port(EPP) – Compatible with IEEE 1284 specification*

Support Extended Capabilities Port(ECP) – Compatible with IEEE 1284 specification

IEEE1394a firewire port x 1 (design in, option, supports provisions of IEEE 1394-1995 Standard for High Performance Serial Bus 1.0 and 1394a-2000)

USB USB 2.0 x 8 (external x 4 on mother board, internal x 4 on connection board)

DVI On DVI board, DVI-D port x 2 (one link with AD board, one to computer I/O side)

VGA On connection board, VGA out x 1

GPIO Support 8 General Purpose Input (GPI), TTL level
Support 8 General Purpose Output (GPO), TTL level
5V
internal pin heads on mother board
External connector on computer module (option)

WDT 1~252 minutes, software programmable

BIOS

Brand: Award
Flash ROM size: 8M
Support RTC wakeup /Wake on LAN /auto power on after power failure/PnP/ACPI/Smart fan control

Display

LCD module CMO V546H1-LH4

Model	*V546H1-LH4*
Resolution (pixel)	*Full HD (1920 x 1080)*
Active Area (mm)	*1209.6x680.4*
Pixel Pitch (mm)	*0.63*
Display Mode	*16:9*
Number of Colors	*10bit (1.07G)*
View Angle (H/V)	*178 / 178*
Brightness (cd/m², nit)	*500*
Contrast Ratio	*4000:1*
Response Time (ms)	*4.5 (Gray to Gray)*
Power Consumption (W)	*160*
Interface	*2ch LVDS*
Supply Voltage (V)	*12*
Backlight	*10 CCFL*
Outline Dimensions (mm)	*1267.6x728.4x61.6*
Weight (g)	*19500*
Life time (Hrs)	*50,000 hours*

Touch single touch, option
IRTOUCH L55D00H-01

Model name	*L55D00H-01*
Type	*Infrared rays*
Glove	*Yes*
Stylus	*Yes*
Vandal	*No*
Interface	*USB*
Light Transmission	*>=92%*
Hardness	*Glass hardness – Mohs 7*
Glass thickness	*3mm*

Linearity	*1.5mm*
Active area (mmxmm)	*938x531*
Resolution	*1212.6 x 683.4*
Lifetime	*7 years*

Graphic Resolution Support Mode List
OS: Microsoft Windows® XP Pro, XP embedded, Windows 7

VGA for VESA Standard Timing

No.	Resolution	fV (Hz)	fH (KHz)	Pixel Rate (MHz)
1	800x600	60	37.9	40.000
2	1024x768	60	48.4	65.000
3	1280x720	60	44.8	74.500
4	1280x768	60	47.4	68.250
5	1280x1024	60	64.0	108.000
6	1360x768	60	47.7	85.500
7	1366x768	60	47.7	85.500
8	1920x1080	60	67.2	173.000

Digital source

No.	Resolution	fV (Hz)	fH (KHz)	Pixel Rate (MHz)
1	800x600	60	37.9	40.000
2	1024x768	60	48.4	65.000
3	1152x864	60	53.7	81.675
4	1280x720	60	44.8	74.500
5	1280x768	60	47.4	68.250
6	1280x960	60	60.0	108.000
7	1280x1024	60	64.0	108.000
8	1360x768	60	47.7	85.500
9	1366x768	60	47.7	85.500
10	1920x1080	60	67.0	148.500

Storage
HDD *3.5" SATAII HDD drive bay x 1, Max storage size: 1TB*
With tray for easy replacement

Expansion slots
PCIe mini card *Single 52-pin card-edge type, x1*
PCIe x 16 *Compatible to the PCI Express* Base Specification revision 1.1a x1*
PCIe x1 *Compatible to the PCI Express* Base Specification revision 1.1a x1*

External I/O on computer side
USB *USB 2.0 x 4*
COM *RS232 x 1*
LAN *RJ-45 x 2 (Gigabit Ethernet)*
KB/Mouse *PS/2 Keyboard x1 & Mouse x 1*
Audio *Line-in, Mic-in, Line out audio jacks*
DVI-D *output x 1*
IEEE1394a *Fire wire *1 (option)*

GPIO connector 8 in 8 out (option)

External I/O on bottom

VGA input x 1
VGA output x 1 (loop signal output with VGA input)
HDMI input x 1 (design in option)
Any door to access internal DVI-D input x 1

Power

Power input Direct AC connector, ATX power supply to computer board, 100~240VAC, 50/60Hz, TBD A
Power consumption and Ampere
Display only: TBD W, TBD A
With computer module: TBD W, TBD A
Power switch IEC320 type, at AD board I/O side, x1
Reset switch Huafeng Electronic HF606, at computer I/O side, x1
LED status indicator Power and HDD indicator at computer board external I/O side (LED colors: Power: Green / Orange: HDD accessing)

Mechanical & Environmental

Mainbody SECC, black (Panton no. 8238)
Operating Temperature: 0˚C ~ 40˚C
Storage Temperature -20˚C ~ 60˚C
Operating Humidity 10 ~ 90%
Storage Humidity 10 ~ 90%
Noise Level Full loading 38 dB
Kensington lock hole Computer module I/O side x 1, HDD tray x1

Dimensions and Weights

	WMS-55PLUS2E BK	WMS-55PLUS2E BKIT
Weight (without stand) Kg	51.3	61.2
Weight (with stand) Kg	53.3	63.2
Dimensions (without stand) mm (W) x mm (H) x mm (D)	1336x807x145	1336x807x162
Dimensions (with stand) mm (W) x mm (H) x mm (D)	1336x820x145	1336x820x162

Packing

Weight (without stand) Kg	56.3	66.2
Weight (with stand) Kg	58.3	68.2
Carton dimension mm (W) x mm (H) x mm (D)	1495X915X315	1495X915X315

Options:

1. *TV tuner function & Video capture function: COMPRO E300F and E600F, PCI-E x1 card*
2. *Wireless LAN function: by VIA VNT6656GEV00 PCI-E 802.11 b/g 54M mini card*
3. *VGA card function: by TUL ATI HD 4650*
4. *Stand x2*
5. *Bottom I/O cover*
6. *Side I/O cover*
7. *Web camera (1.3M pixels, RICOH RY5U870-SOO1B-01A)*
8. *Speakers (5W+5W) (landscape, portrait, Natural melody speaker unit, B0-0018-I-09E-GP 40mm 4ohm)*
9. *Wall mount bracket (200 x 200 mm x mm)*

10. Magnetic stripe card reader (UIC MSR210U-33 MSR module)

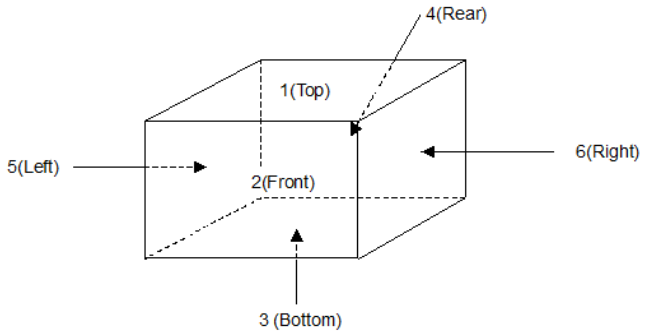
Accessories:
1. Power Cable x 1
2. Remote controller x 1
3. CD title x 1
4. Screws x 8 (M4xL10, for stands)
5. Screws for VESA mount (M8xL12) x 9
6. Accessories of option parts

Regulatory:
FCC-A, CE (EMC/LVD), VCCI, UL/cUL, CCC

Shock/Vibration/Drop
Shock
Non-Operating: 15G/0.53 oz, 11 ms, half sine wave

Vibration
Non-operation
5~22HZ : 0.25G
22~350HZ: 2G
350~500HZ : 1G
CYCLE TIME: 1 MINUTE
DIRECTION: X,Y,Z (one direction TIME is 10 MINUTES)

Drop



	Drop Point		Drop Times
1	Corner in contact with the bottom, left and front side	2-3-5	1
2	Edge where the bottom and right side are in contact with each other	3-6	1
3	Edge where the front and the bottom side are in contact with each other	2-3	1
4	Bottom side	3	1
5	Front side	2	1
6	Right side	6	1
7	Left side	5	1

8	Rear side	4	1
9	Top side (Less than 30kg only)	1	1

Drop Height:

PACKING WEIGHT [kg]	BOTTOM SURFACE [cm]	LEFT and RIGHT SURFACE [cm]	OTHER POINT [cm]
Less than 10	60	40	50
10 or over	55	35	45
20 or over	50	30	40
30 or over	45	25	35
40 or over	40	20	30
50 or over	35	15	25
60 or over	30	15	20
100 or over	30	No Need	No Need

Configurations:

1. *WMS-55PLUS2EBK(bezel + black body)-C2D2.6G CPU-1G RAM-160G HDD*
2. *WMS-55PLUS2EBKIT(bezel + black body + IR touch)-C2D2.6G CPU-1G RAM-160G HDD*

Installation

The procedures for setting up your WMS-55PLUS2E are as follows:

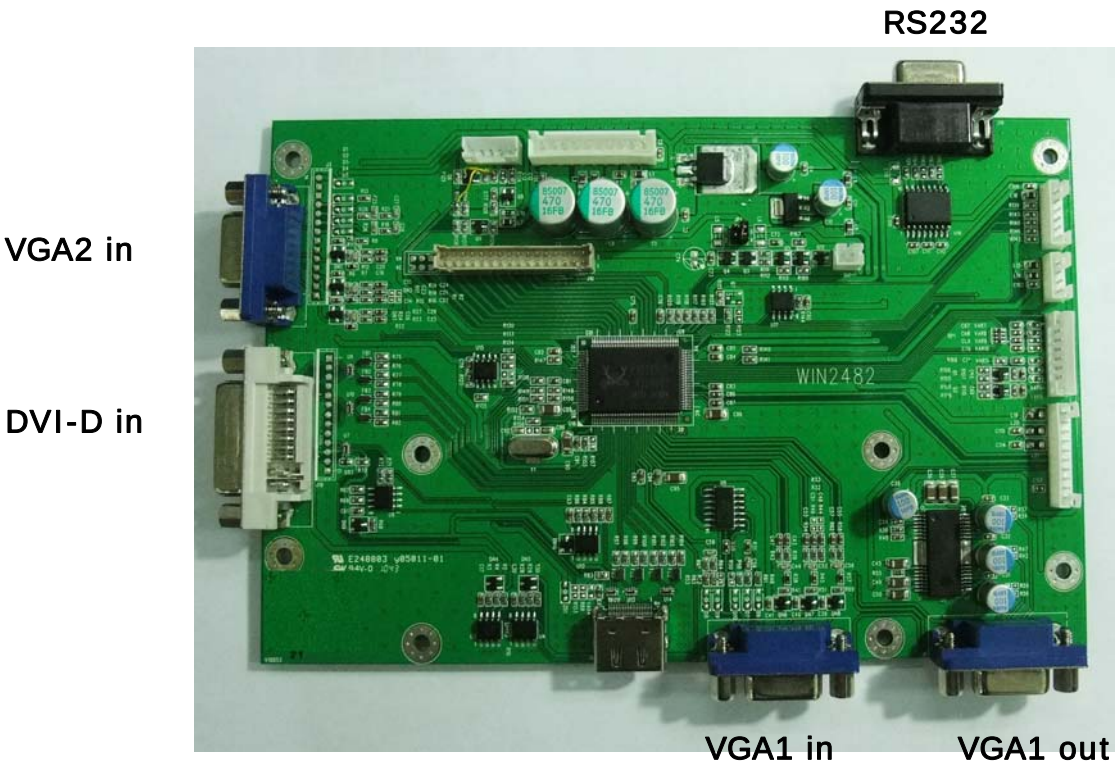
Power & Signal Connections

1. Power cable connection:

Connect the power cord to the AC outlet.

2. Signal cable connection:

The LCD public display is designed to work with second video sources. Due to possible deviations between these video sources, you may have to make some adjustment to the monitor settings when switching between these sources. These adjustments are made from the OSD menu.
This figure shows the signal connectors of the AD board to integrated computer.



3. Power on:

a. Switch on the power of your monitor (switch is located near connector of power cord)
b. Switch on the power of integrated computer.

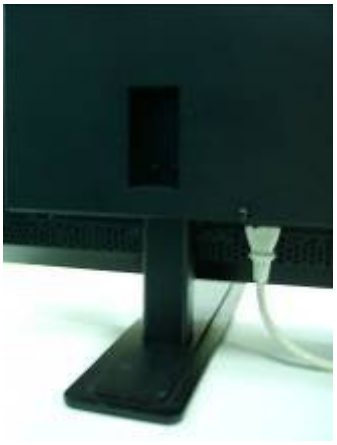
4. Power off:

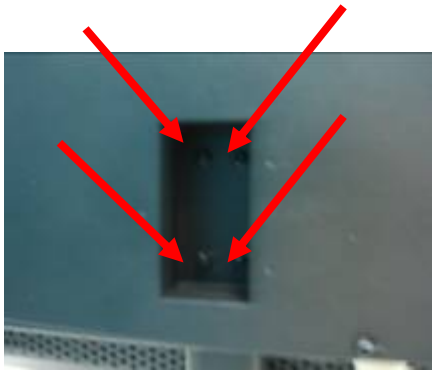
a. Switch off the power of integrated computer (at the I/O port).
b. Switch off the power of your monitor (switch is located near connector of power cord)

5. Mount or Dismount stands:

a. Place the monitor face down on the stable and flat platform.
b. Mount stands on:
- Insert stand into the stand holes.
- Use screw driver and M4xL10 screws in accessory box to fasten stands on WMS-55PLUS2E
Dismount stands:
- Use screw drivers to unscrew the M4xL10 screws from stand frame
- Store the screws in proper place for next usage

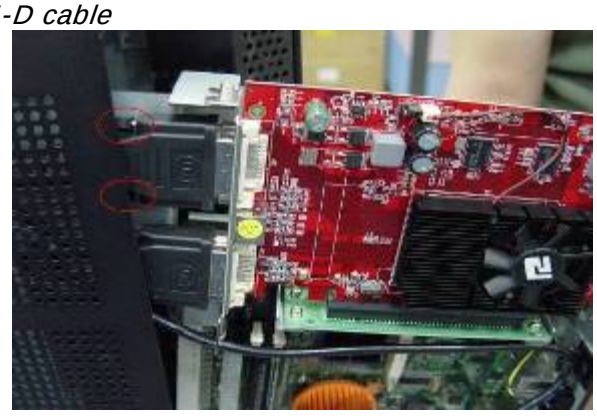
M4 X L10 screws





6. Wireless module set installation:

a. Unfasten screw on PC module and pull out PC module
b. Unfasten the screw on DVI-D cable



c. Fix the antenna

Remove the nut on antenna.

Fix antenna on I/O bracket

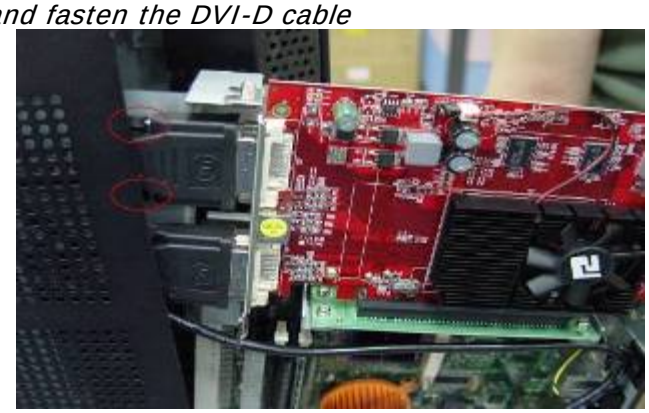
d. Install Wireless LAN module

e. Fix Wireless LAN module

f. Install antenna to Wireless LAN module (main connector)

g. Add tape to fix antenna

h. Install PC module back and fasten the DVI-D cable



i. Fasten the screw on PC module.

j. Done

7. Wall-mounted Installation

a. Unplug all the cables and cords from WMS-55PLUS2E.

b. Place WMS-55PLUS2E face down on a soft and flat surface (blanket, foam, cloth, etc) to prevent any damage to the display.

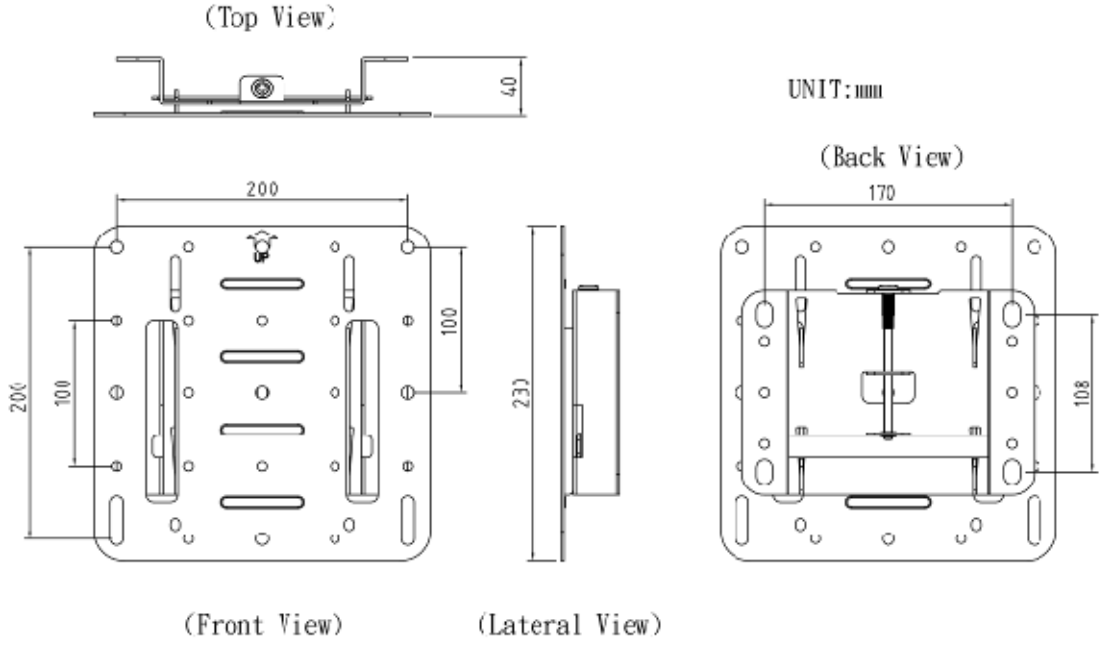
c. Unscrews, and then gently pull the stand away from WMS-55PLUS2E.

d. Now, the display can fit securely to a mount (sold separately) by utilizing the mounting holes in the center of the back panel of the display (see Figure 5).

Specification
HT-A06

1. Product Spec :

◎TV Range : 14"~47"
◎Max. Load : 30KG
◎Viewing angle : NO
◎Hole dimension : 200mmX200mm
◎The distance to the wall : 4 cm
◎Weight : 1.7 KG

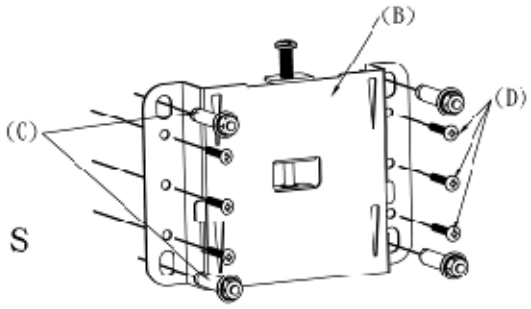


2. Parts Name :

◎After opening, please inspect all components are complete.
◎The Screw specifications and hole dimensions in each display is different, please confirm the type of screws before installing.

A TV Bracket---1PCS	B Wall Bracket---1PCS	C Φ10X56 Wall Anchor---4PCS	D Φ5.5X38 Wood Screw---6PCS
E Φ10 Sleeve---9PCS	F M8x10 Screw---9PCS	G	H

Installation
HT-A06

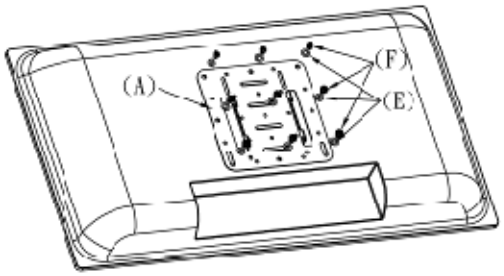


1. Choice the suitable wall's material :

◎The wall at least 5cm thick and make sure the material is suitable for installation.

◎For a wooden wall, please choose wood screw 6pcs ϕ5.5x38mm(D)

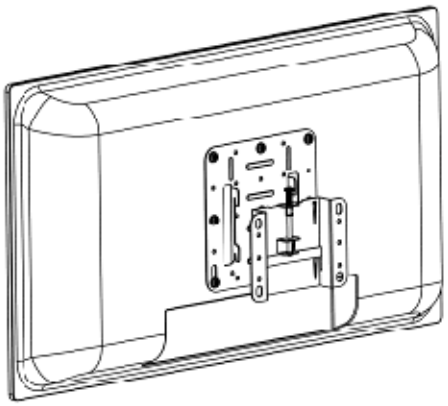
◎For a concrete wall, please choose wood wall anchorscrew 4pcs ϕ10X55mm(C)



2. Connect wall bracket and display :

◎Make sure the display is turn off before installing.

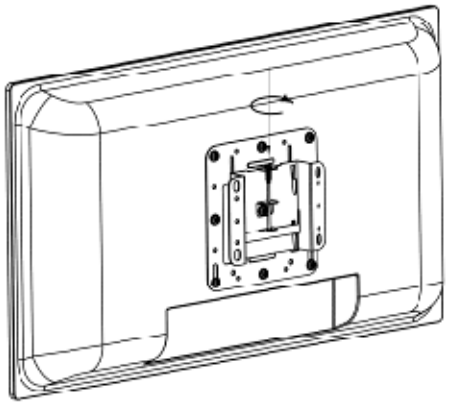
◎Use 9pcs M8x10 (F)screw and 9pcs ϕ10(E) sleeve to assemble the TV bracket to the LCD TV.



3. Installing wall bracket :

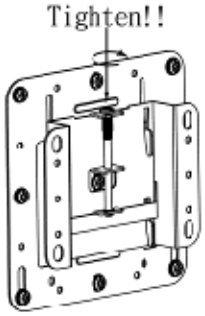
◎ 2 people hold the display is suggested when install.

◎Make sure the two brackets are locked and secure.



4. Locking wall bracket :

◎Please lock the anti-drop shaft to avoid the bracket fall off.

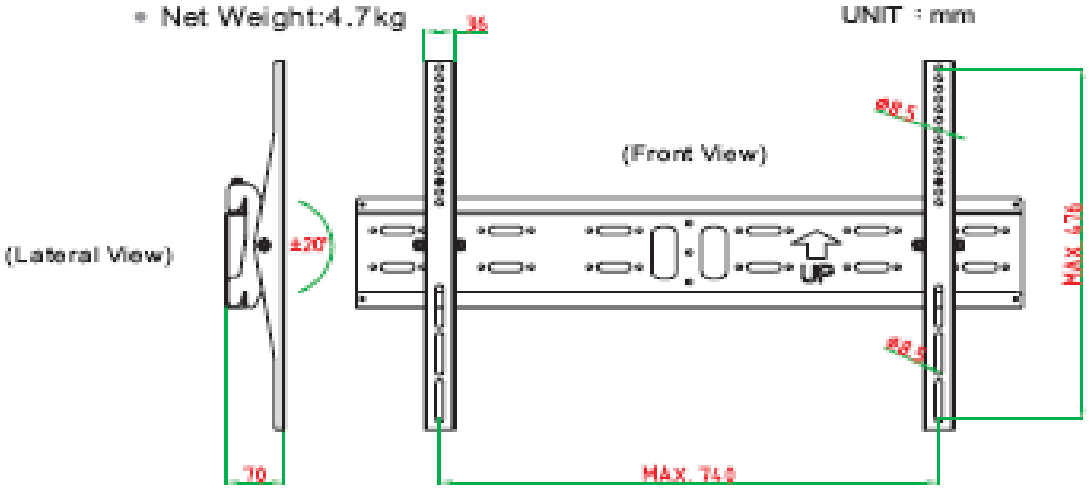


Specification
HT-C06WIN

1 Product Spec

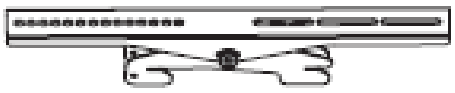
- Max. Load:60kg
- Net Weight:4.7kg

UNIT : mm

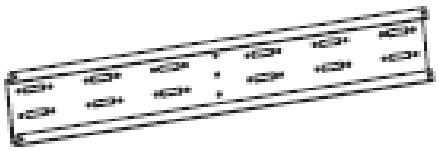


2 Parts Name

- Please check out all parts.



Ⓐ TV Bracket x2



Ⓑ Wall Bracket x1

Ⓒ 5/16x2 ¼ Wall Anchor x4

Ⓓ 6x30 Wood Screw x8

Ⓔ M8x12 Screw x4

Ⓕ M6x40 Anti-thief Screw x2

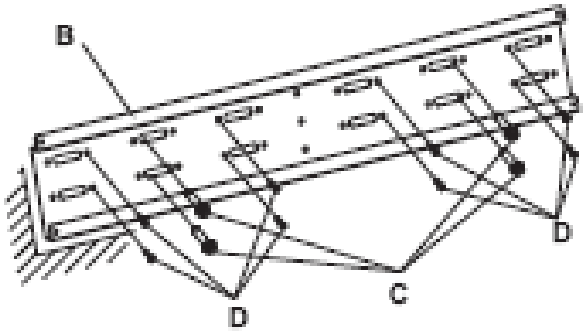
Ⓖ Φ10 Sleeve x4

Ⓗ Anti-thief Hook x2

Installation
HT-C06WIN

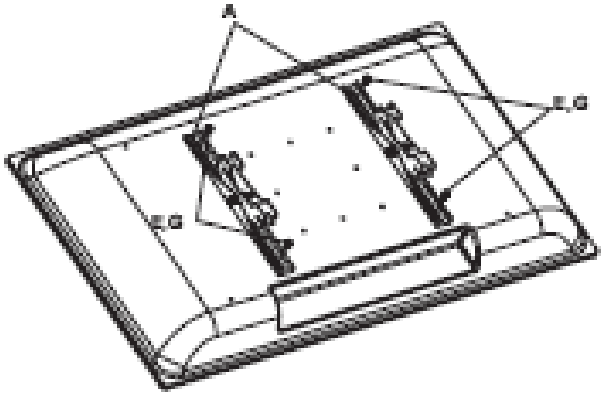
1 Step 1

- The wall must be at least 5cm thick.
- For a wooden wall,please choose wood screws 8pcs 6X20mm(D)
- For a concrete wall,please choose wall anchors 4pcs 5/16 x 2¼mm(C)



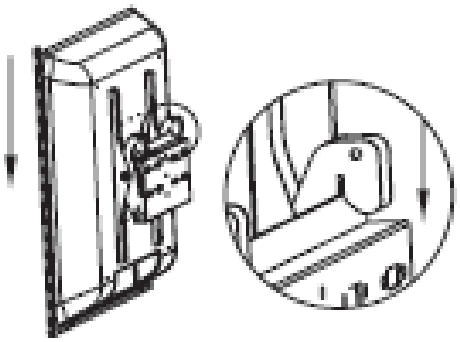
2 Step 2

- At the time of installation,make sure that 2 people hold the LCD TV.
- Make sure the LCD TV is turn off before installing.
- Use 4 pcs M8 x 12 (E) screws and 4 pcs Φ10(G) sleeve to assemble the TV bracket to the LCD TV.



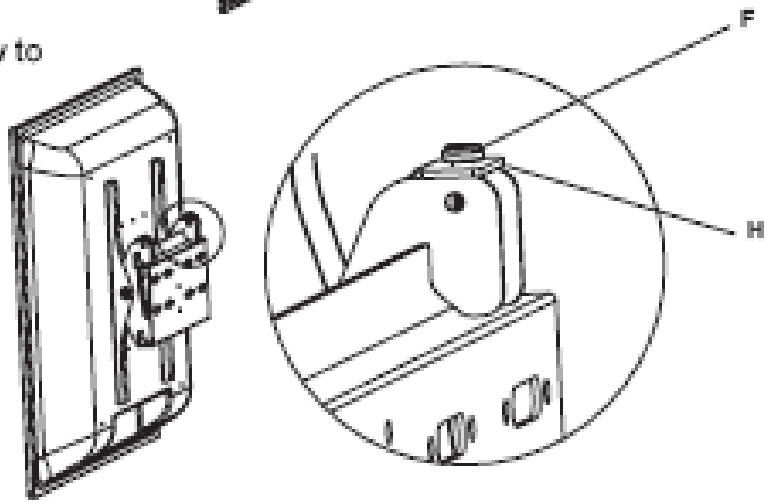
3 Step 3

- Make sure the two brackets are locked and secure.



4 Step 4

- Tighten the fixed screw to lock the TV in place.



8. Setup Extend or Clone mode display with DVI port

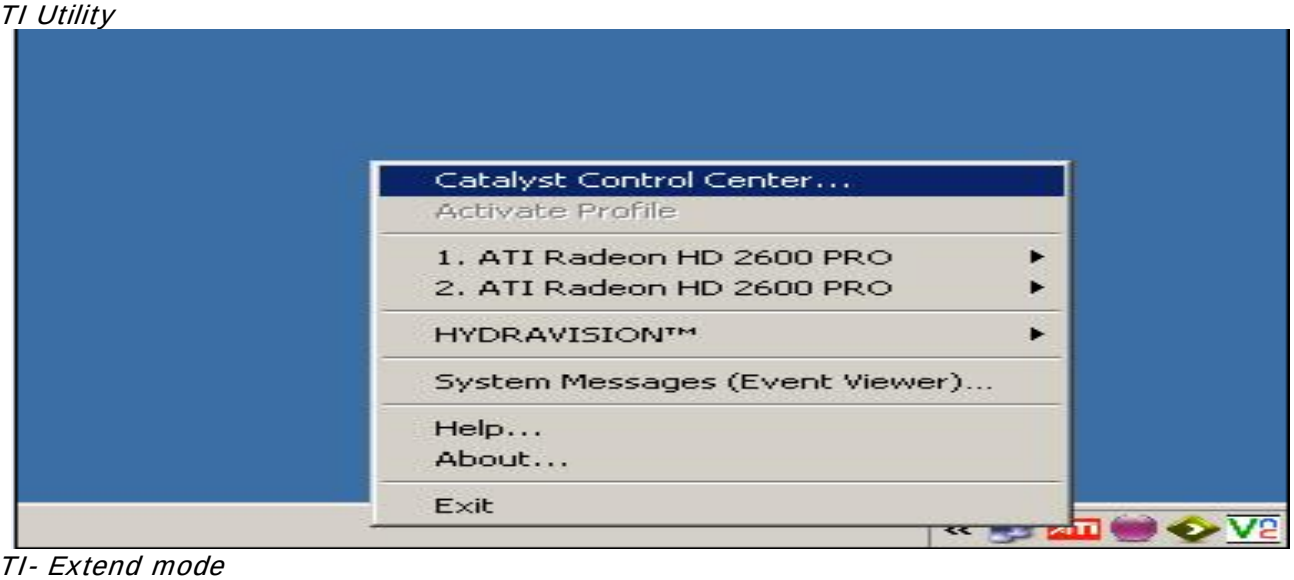
a. Please prepare one DVI cable

b. Connect one side of DVI to the DVI port of PC module

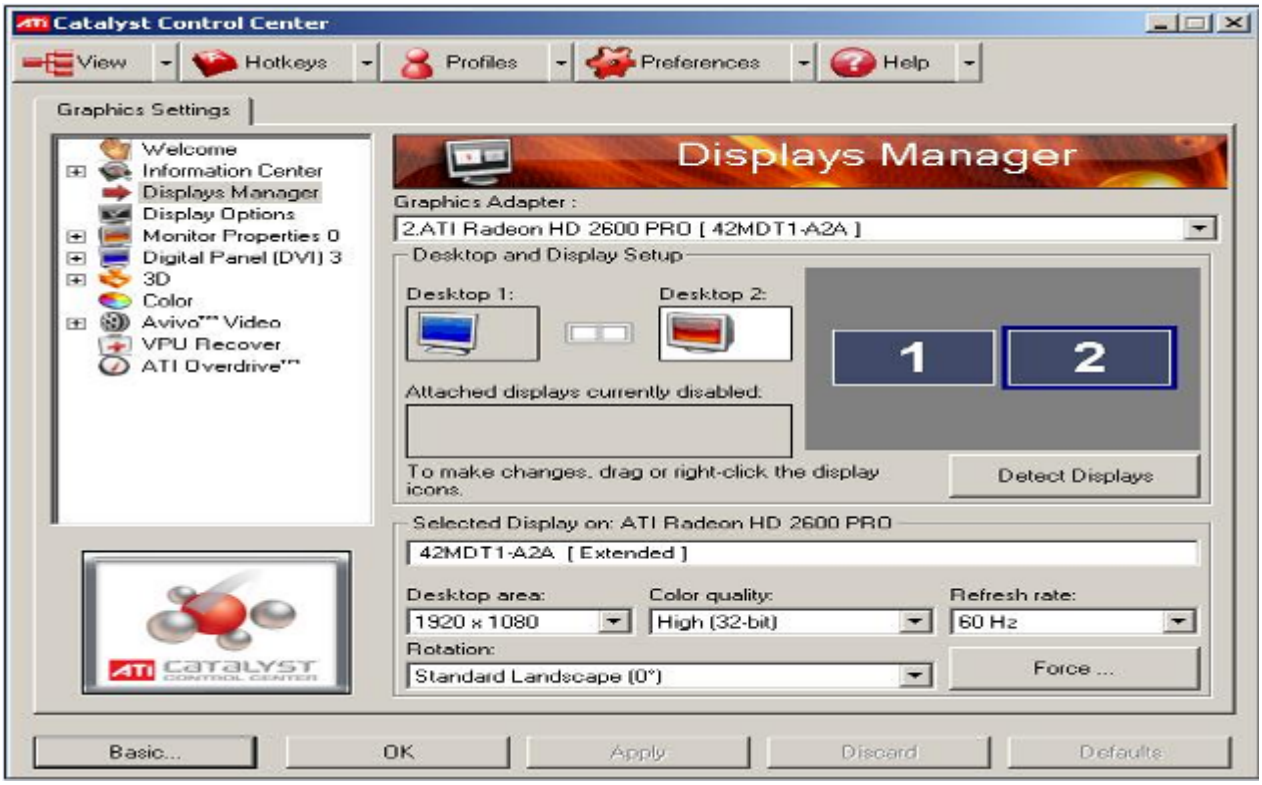
c. Connect the other side of DVI cable to DVI input of another monitor.

d. Use Intel utility or ATI utility to Change display mode

ATI Utility

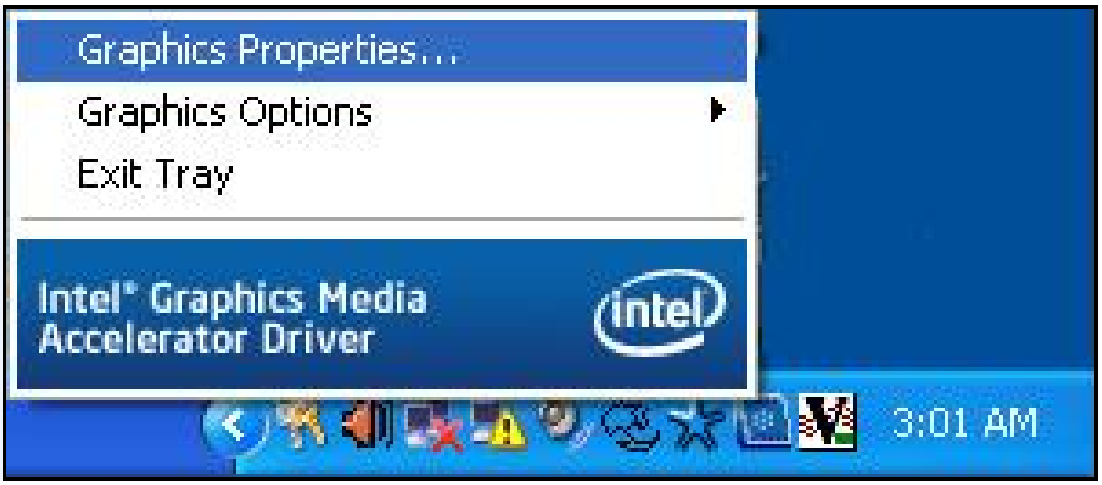


ATI- Extend mode

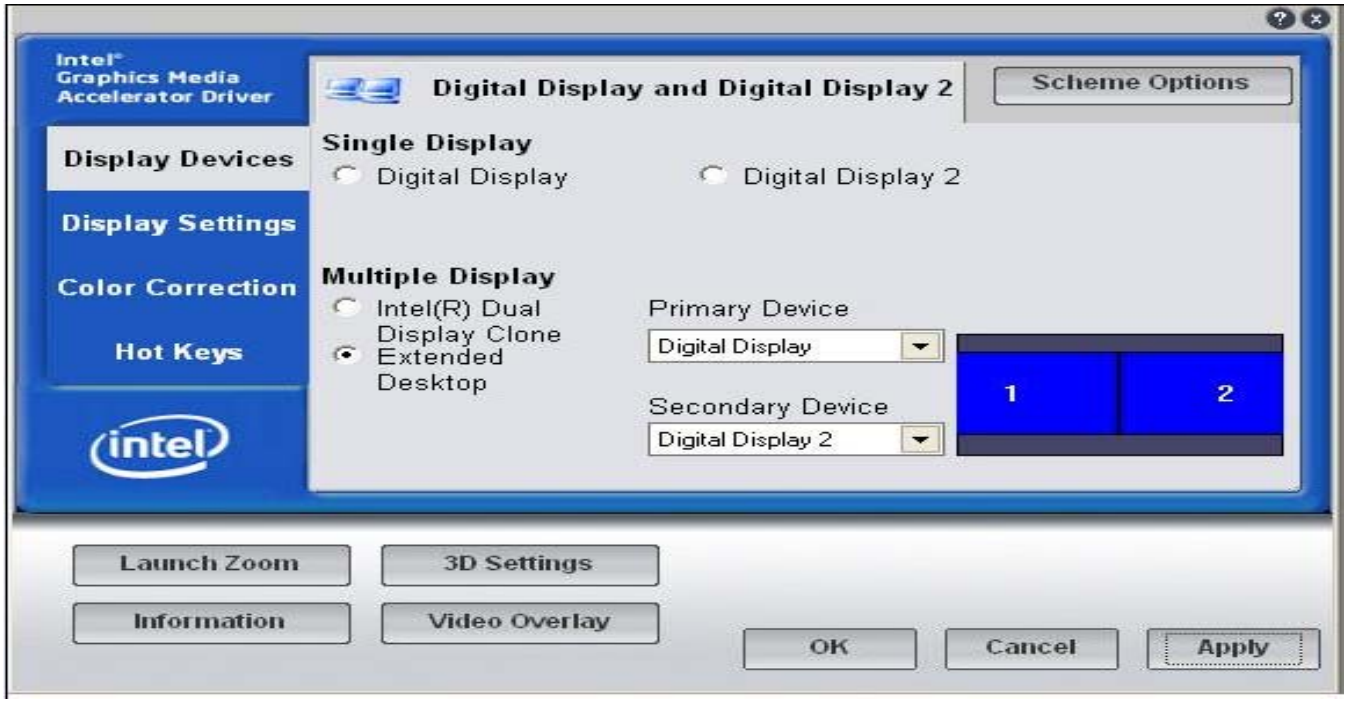


ATI-Clone mode

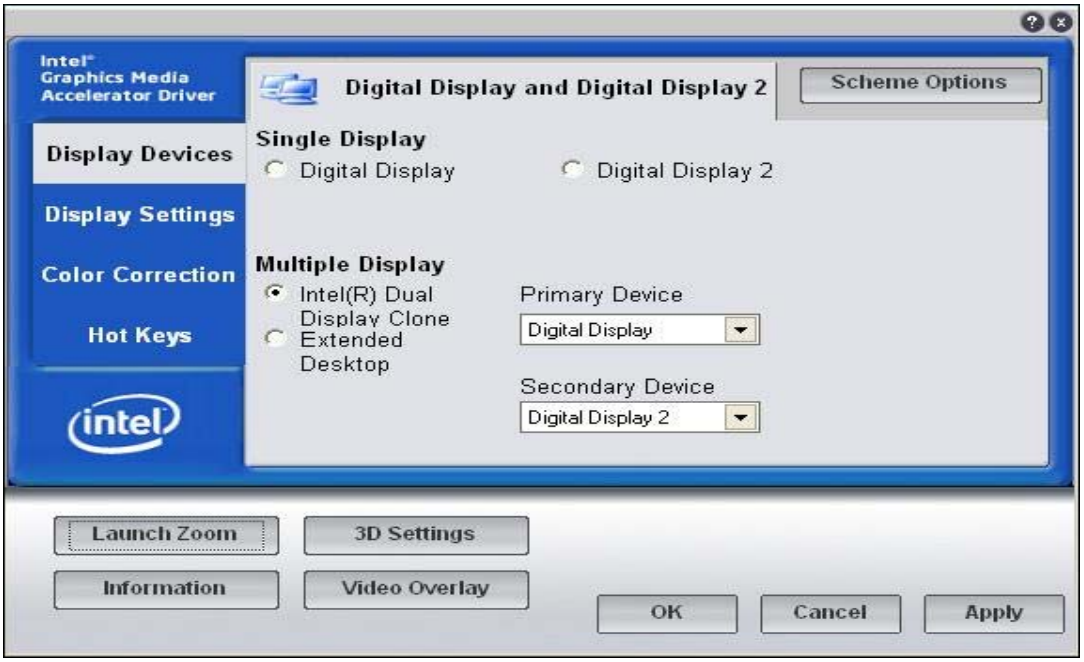
Intel Utility



Intel –Extend mode



Intel –Clone Mode



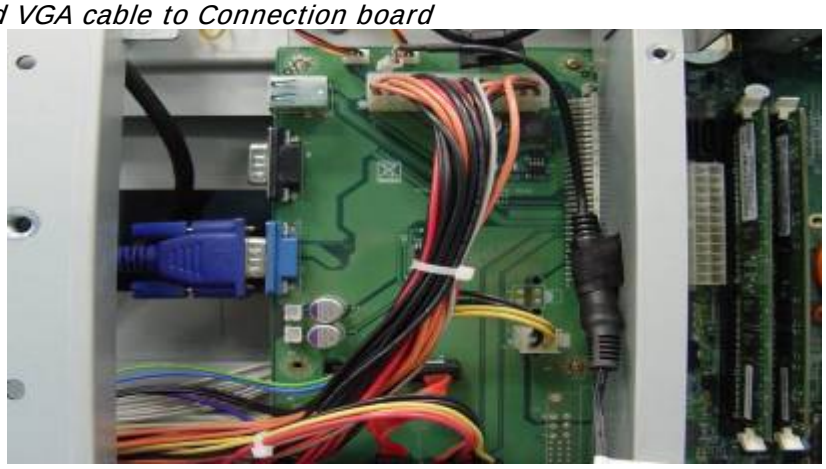
9. How to use VGA to connect more monitor like a chain

a. You need to prepare one standard VGA cable and one extend VGA cable

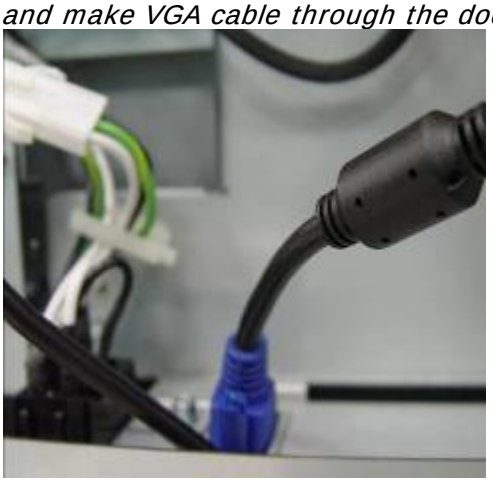
Standard Extend

b. Remove Rear cover of WMS-55

c. *Connect Standard VGA cable to Connection board*



d. Open the door at bottom side and make VGA cable through the door.



e. Connect another side of VGA cable to VGA 1 input connector.

f. *Connect Extend VGA cable to VGA1 output, connect another side of VGA Cable to other Monitor VGA 1 input*

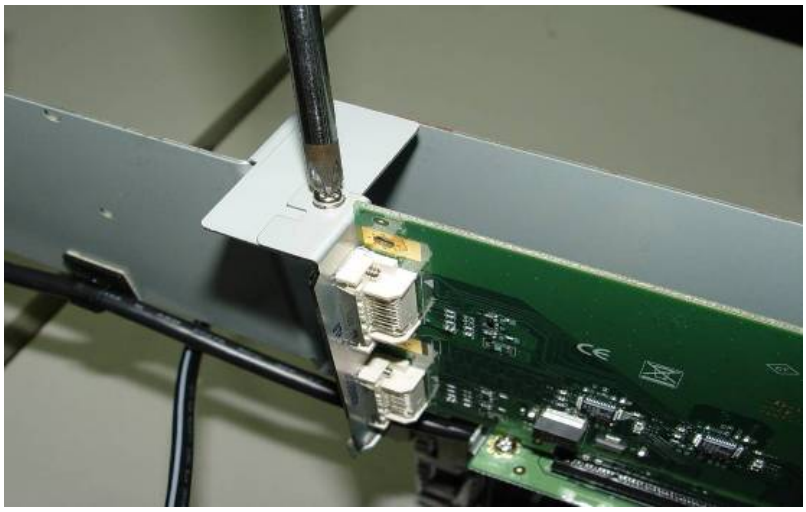
g. *If you need to connect the third monitor, you just need to prepare another extend VGA cable and plug one side in VGA out the other side in the third monitor's VGA 1 Input.*

10. How to use TV tuner card

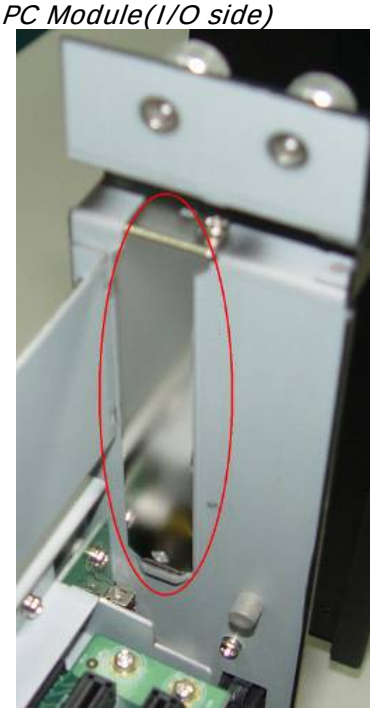
a. Release screws on PC module and pull out PC module

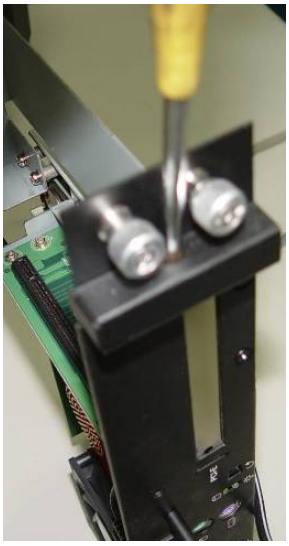
b. Release the screws on DVI cable

c. Release the screw on DVI card bracket and remove DVI card

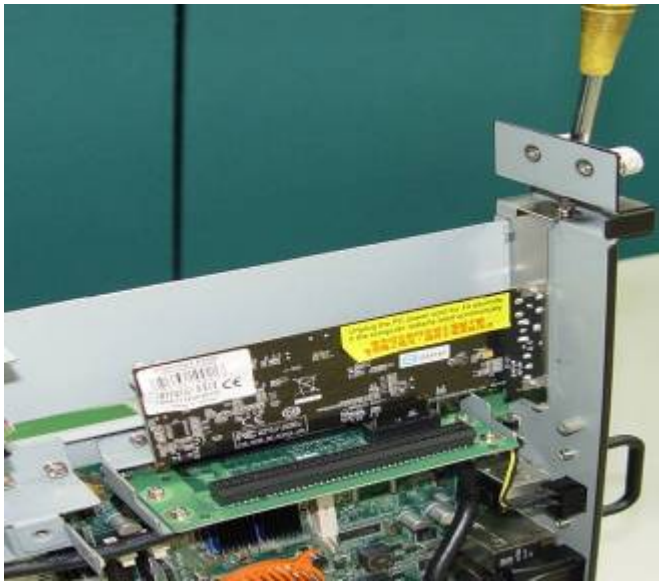


d. Remove the bracket on PC Module(I/O side)

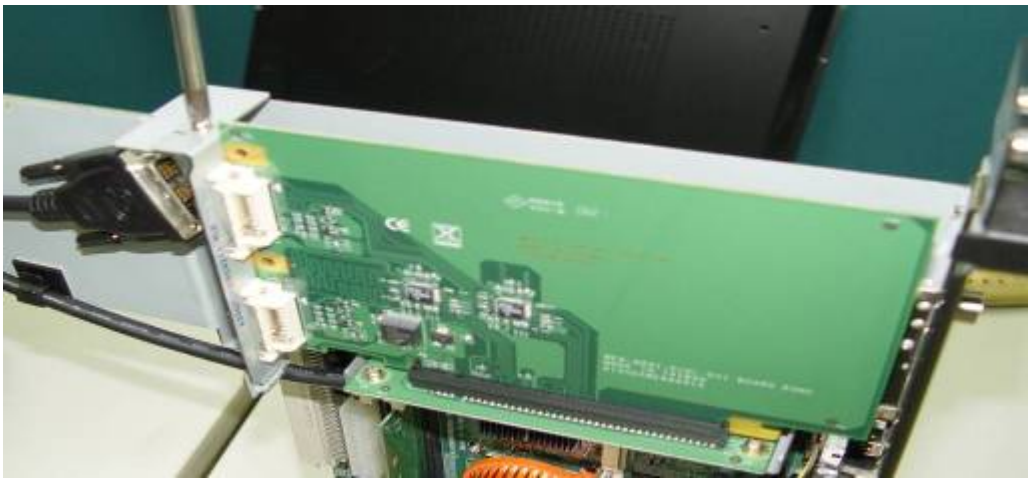




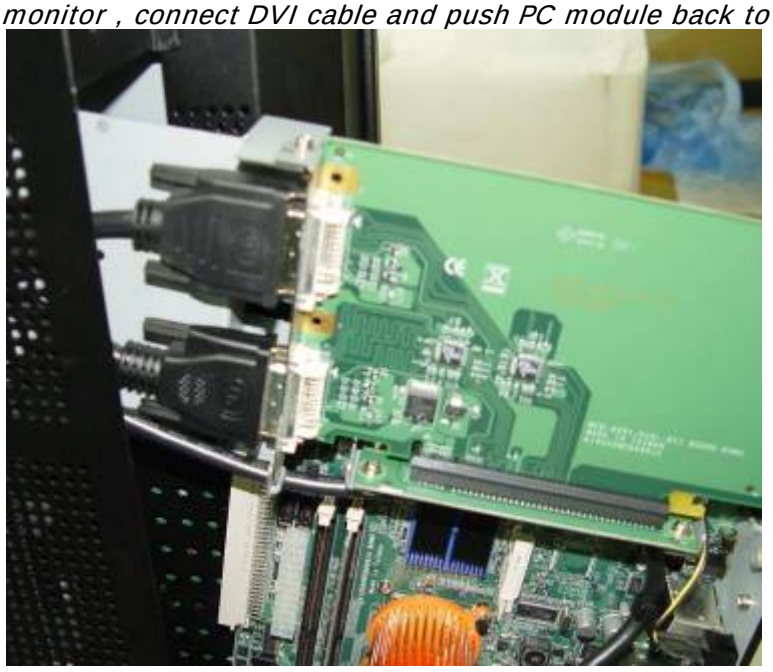
e. Install TV card



f. Install DVI card and cable back



g. Install PC module back to monitor , connect DVI cable and push PC module back to Monitor



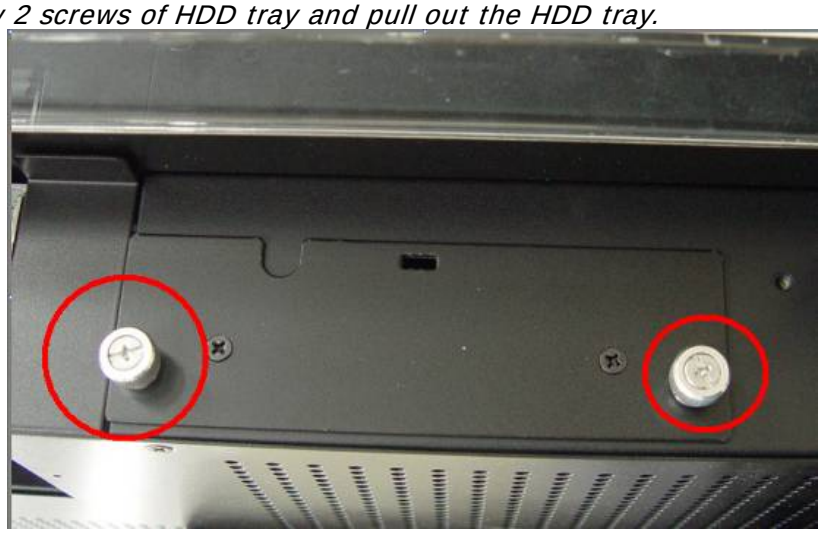
h. Fasten the screws on PC module

11. Procedures to replace hard drive

a. Switch off power

b. Unplug AC power Cord

c. Unscrew 2 screws of HDD tray and pull out the HDD tray.



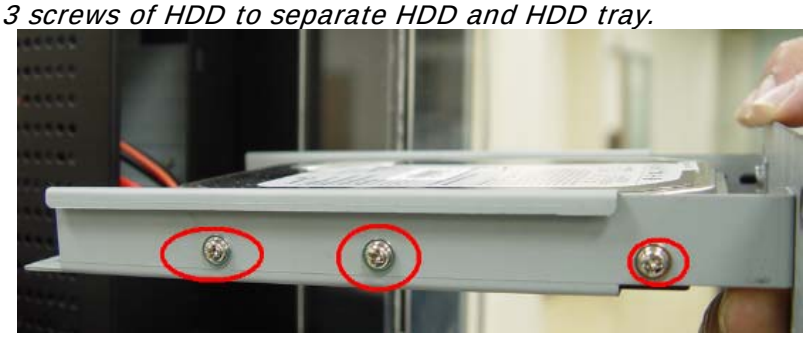
(from bottom view)

(from bottom view)

d. Unplug the SATA cable

(from bottom view)

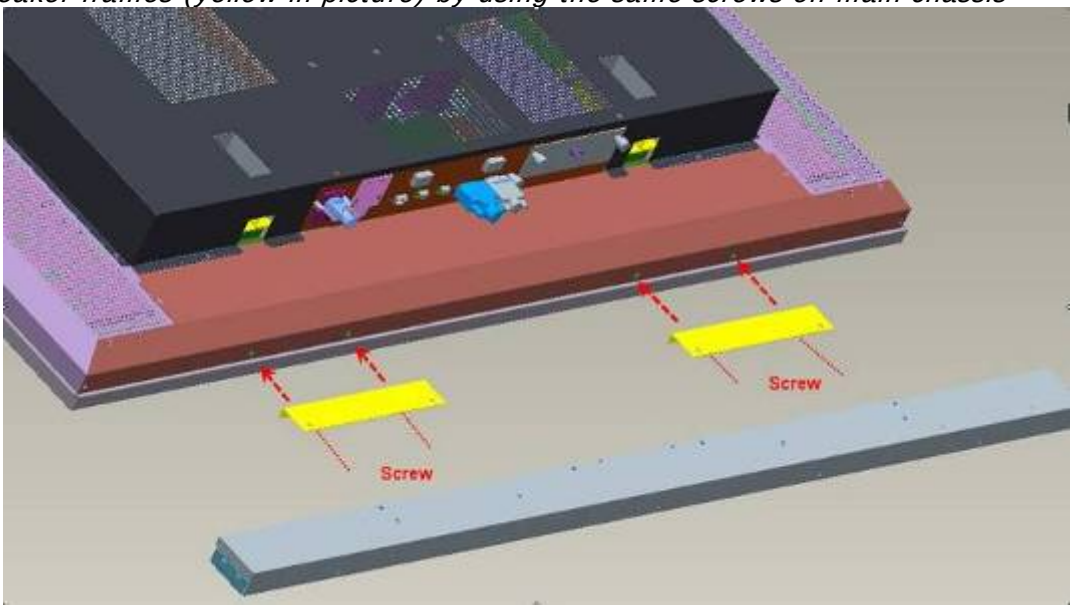
e. Unscrew 3 screws of HDD to separate HDD and HDD tray.


(from bottom view)

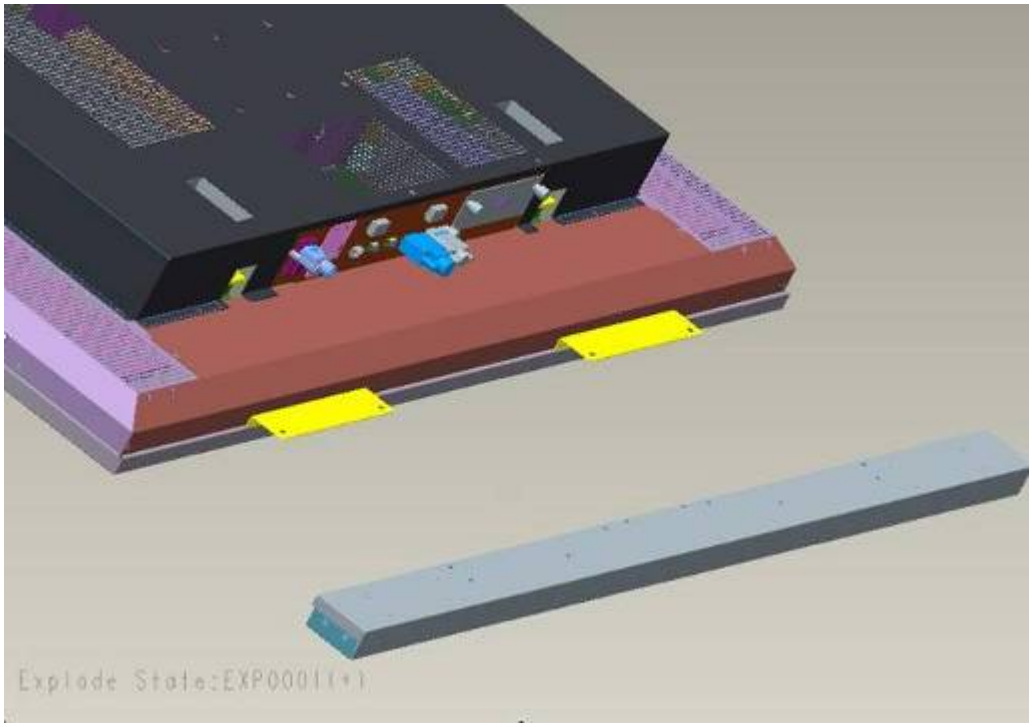
f. Reverse procedures to install new HDD

12. Landscape speaker installation

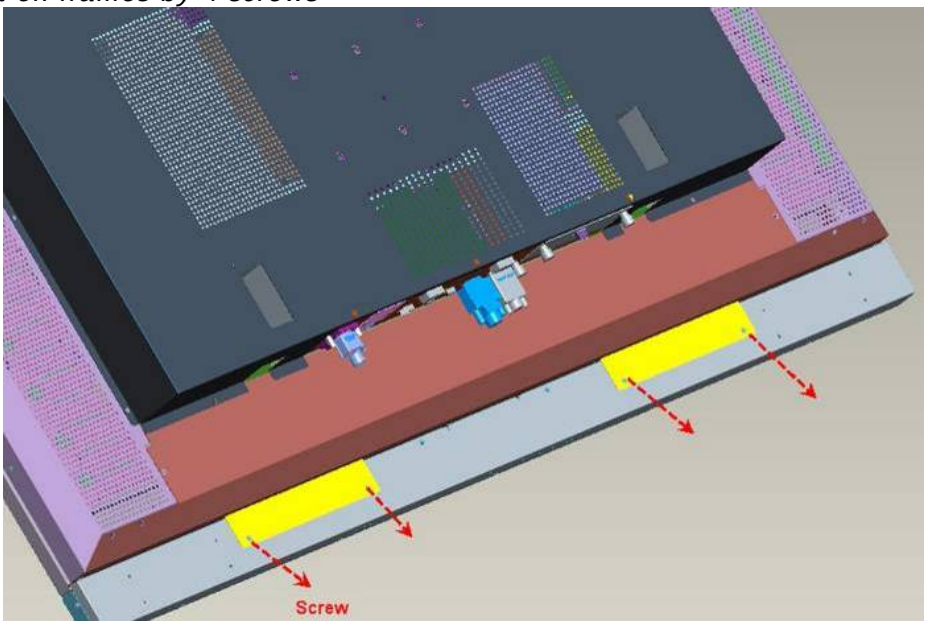
a. Install speaker frames (yellow in picture) by using the same screws on main chassis



b. Result, refer to below picture



c. fix speaker unit on frames by 4 screws



d. connect speaker lines

13. Portrait speaker set installation:

a. Place WMS-55PLUS2 face down on flat table

b. Unscrew 2 screws on the side

c. By using the unscrewed screws to fix bracket at sides

d. install speaker unit, by using 6 screws enclosed in speaker carton to fix speaker unit

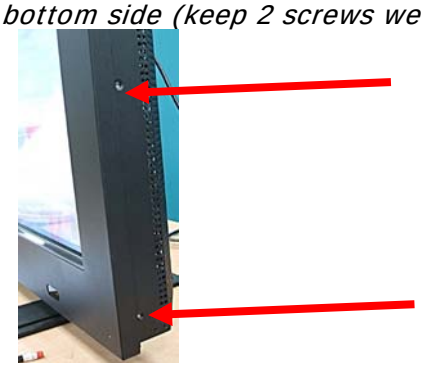
e. Connect cables (there are two cables, one for left side, one for right side)

15. MSR installation

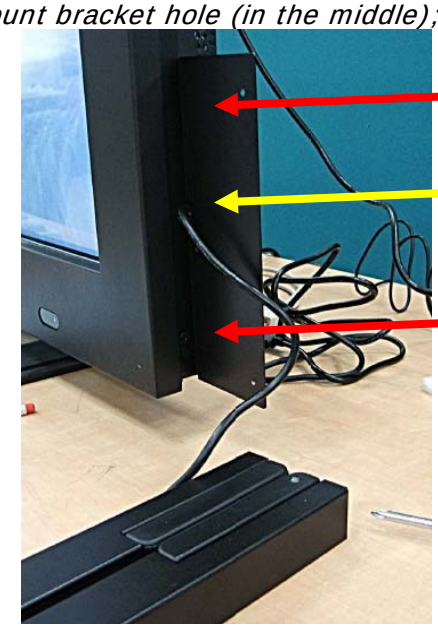
a. Packing list: (from left to right)

- Mount bracket
- MSR module
- Screw x 3 (M3XL6)
- CD title (MSR user's manual and set up AP. CD printing may be changed)

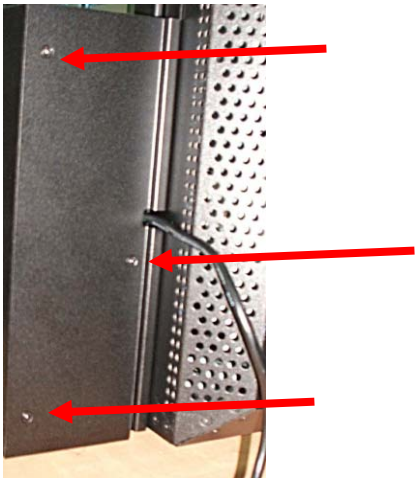
b. Unscrew 2 screws at WMS-55PLUS2 right bottom side (keep 2 screws well)



c. Pass MSR USB cable through mount bracket hole (in the middle); screw back the 2 original screws.



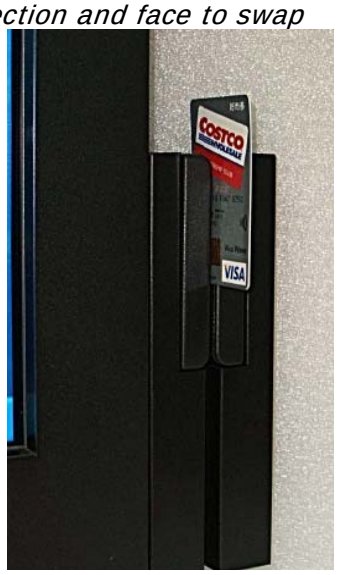
d. By using supplied 3 (M3XL6) screws to fix MSR module on mount bracket



e. MSR module is fixed beside WMS-55PLUS2 side

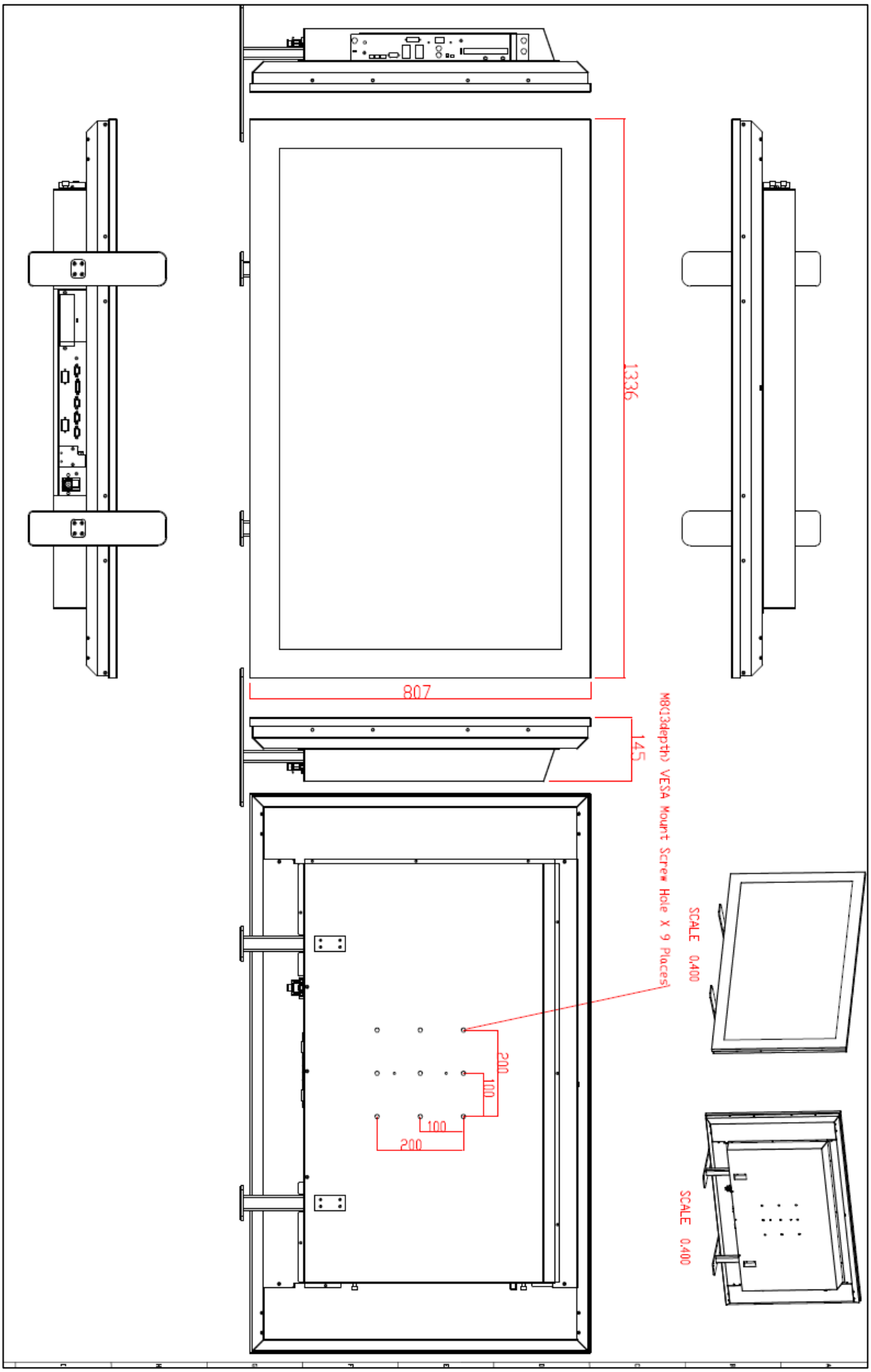
f. Connect USB cable; install MSR setting AP (in CD title) in OS.

g. Take care the the magnetic card direction and face to swap

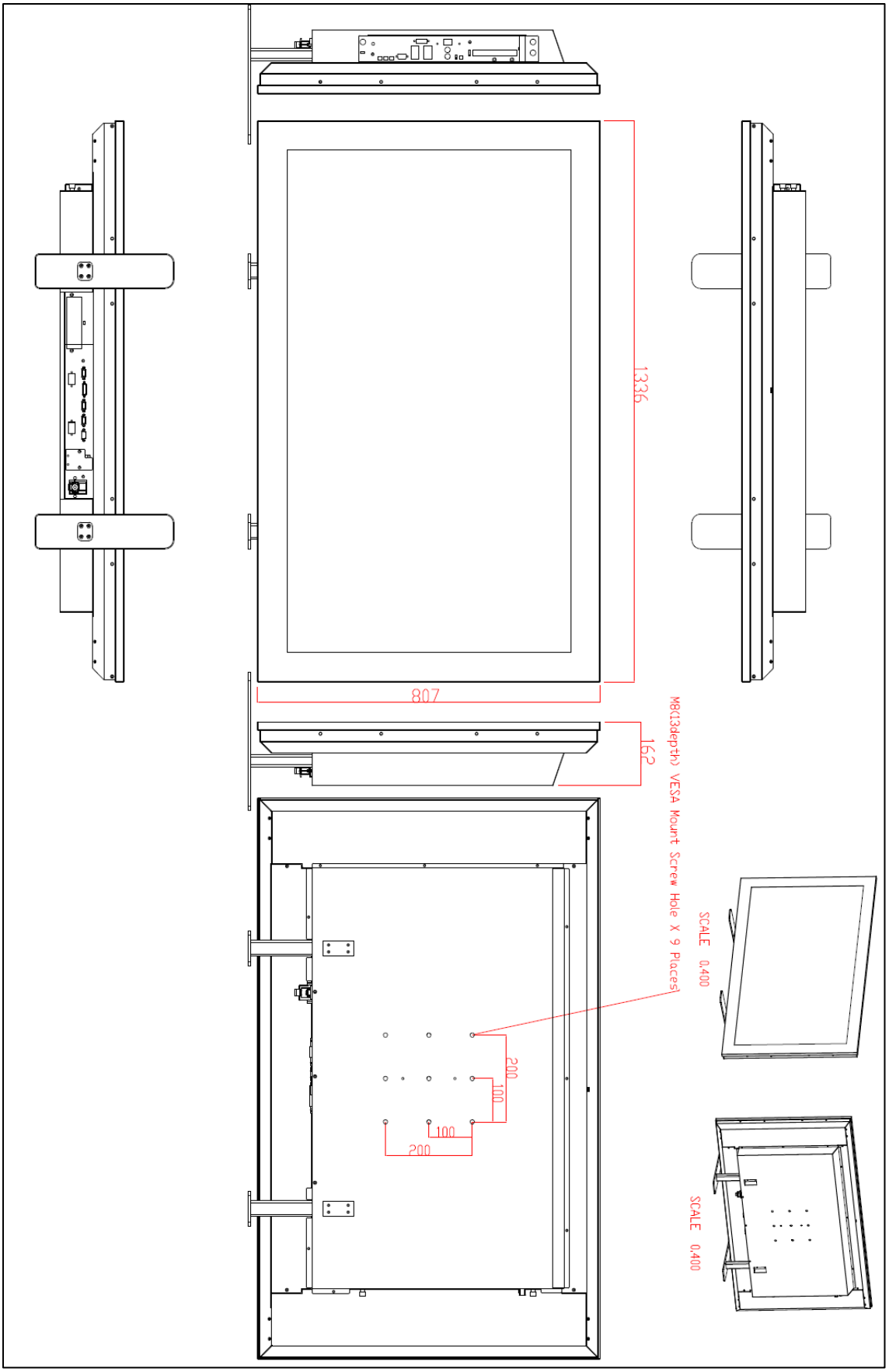


Dimension Drawing

WMS-55 PLUS2E BK:



WMS-55 PLUS2E BKIT (IR single touch):



System view and System Installation

Front View

Color definition of front LED: Green: monitor power ON, Red: monitor power OFF

Figure 1

Side View

Color definition of computer power LED: Green: ON, No: OFF
Color definition of HDD LED: Orange: access, No: no action

Figure 2

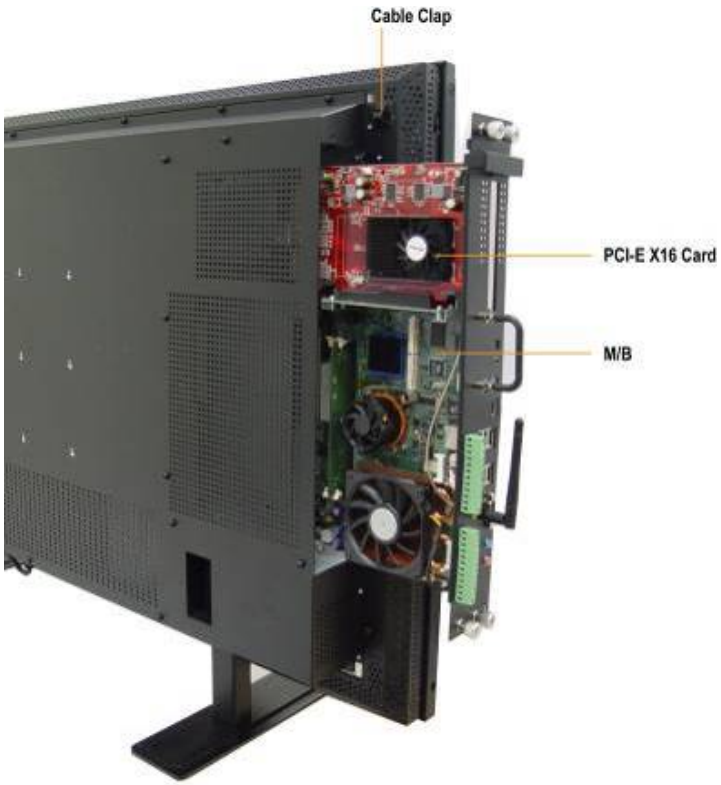


Figure 3

Bottom View

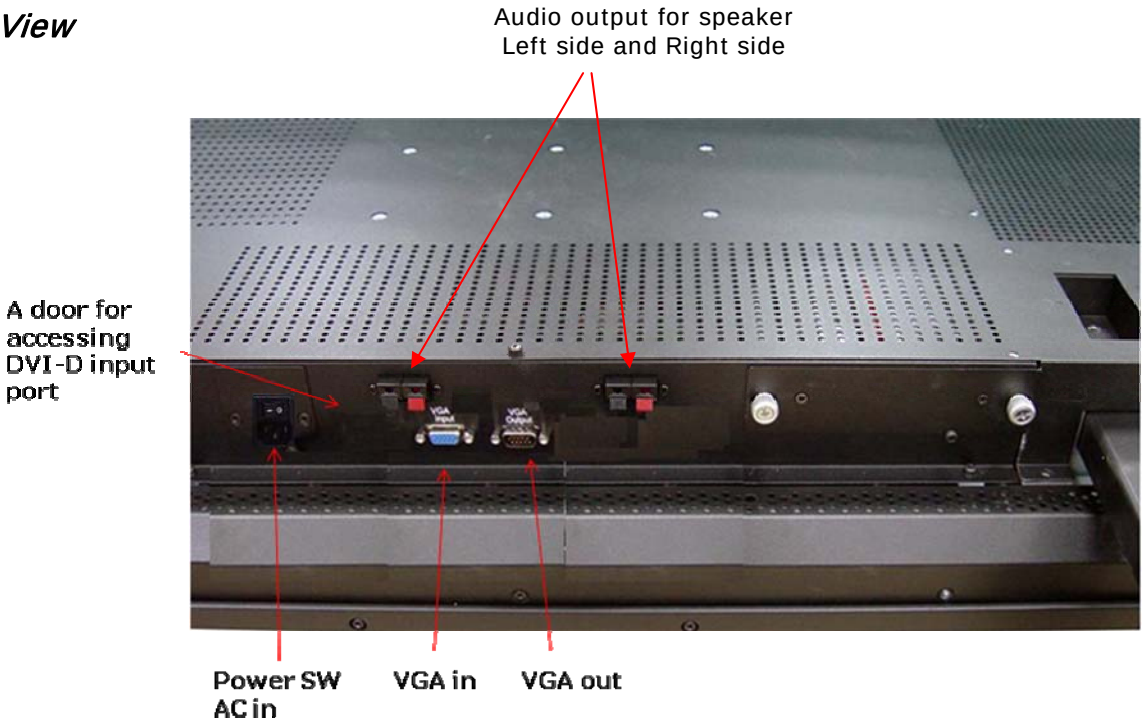


Figure 4

Rear View

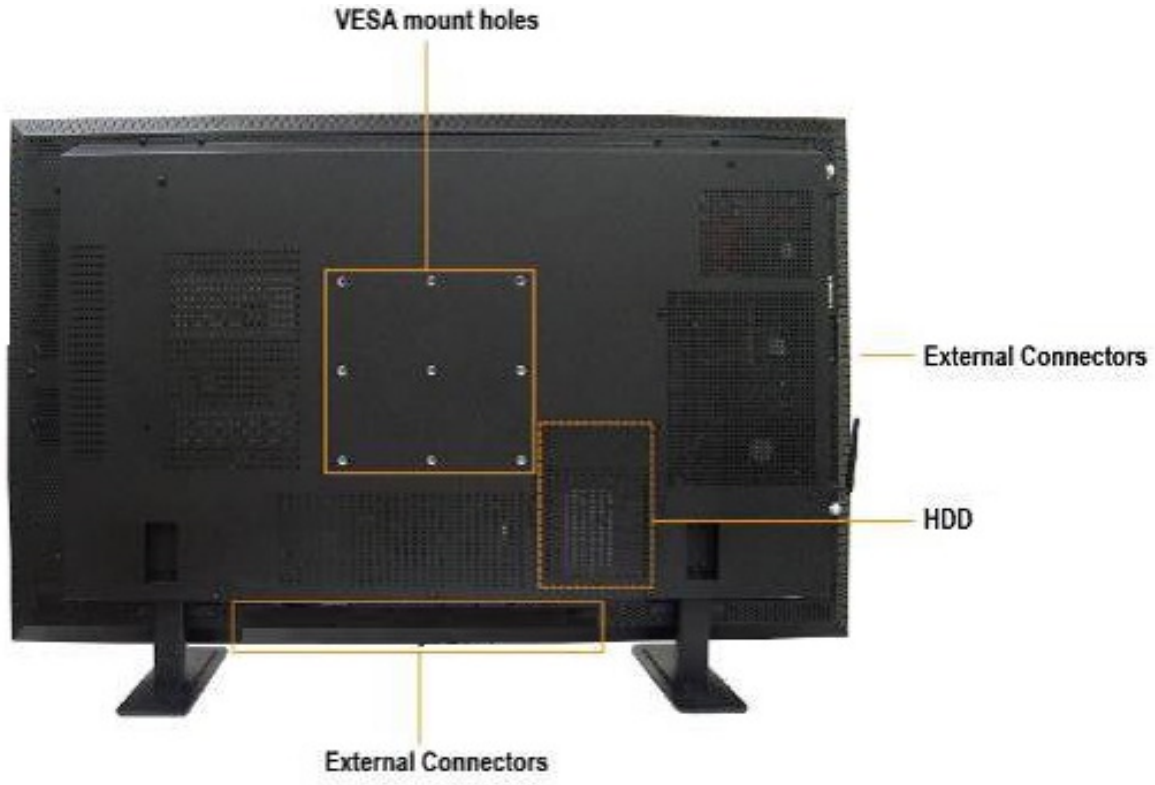
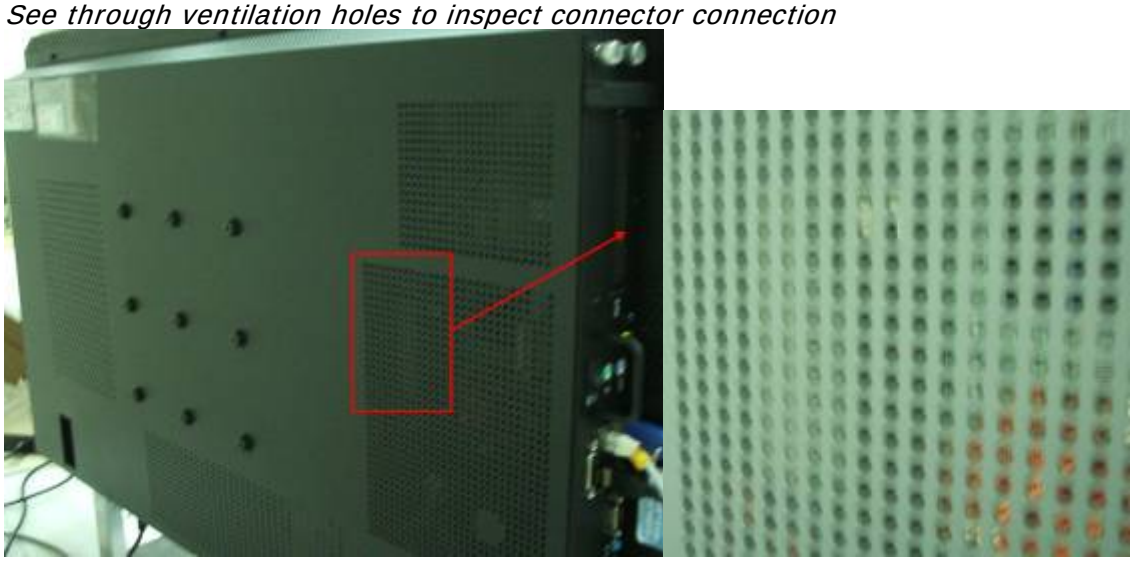


Figure 5

Visual inspection to ensure computer module connector is fully docking

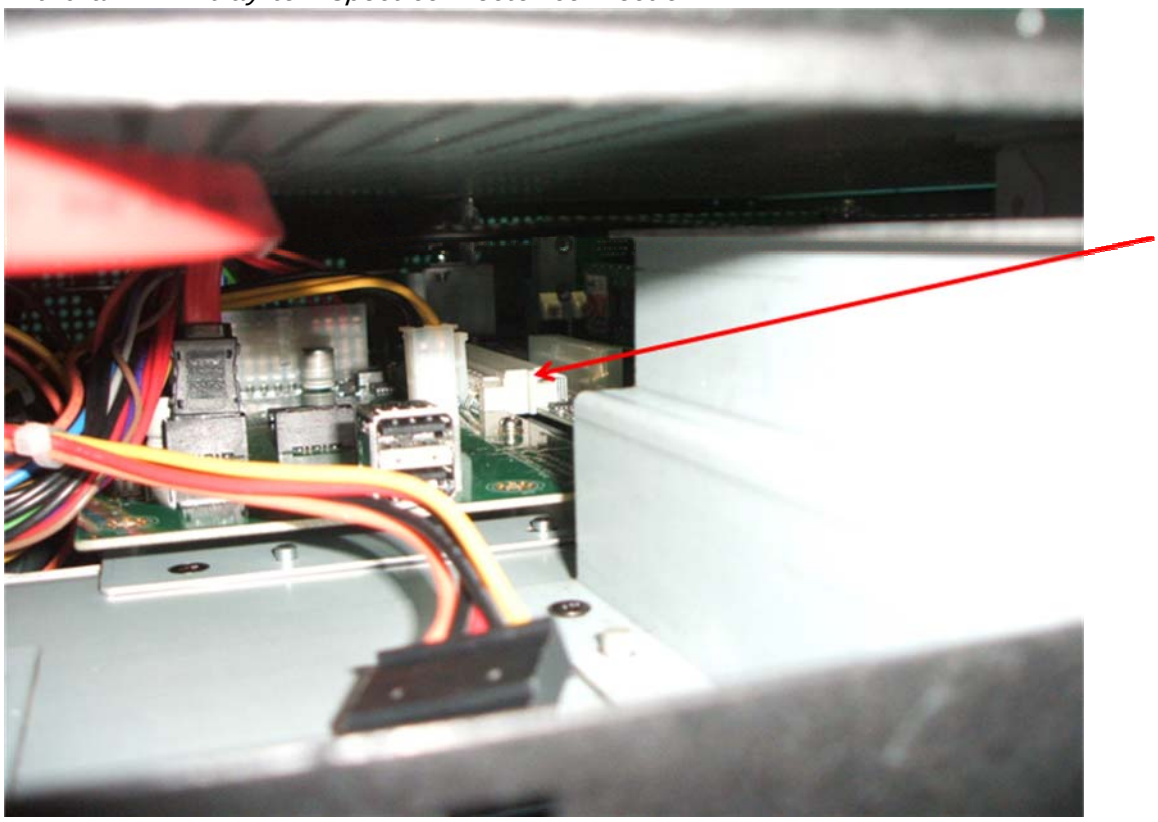
a. From rear cover

See through ventilation holes to inspect connector connection



b. from HDD tray hole

Withdraw HDD tray to inspect connector connection



I/O covers

a. computer IO cover

b. AD board IO cover

System Software Installation

Recent releases of operating systems from major vendors include setup programs, which load automatically and guide you through hard disk preparation and operating system installation. The guidelines below will help you determine the steps necessary to install your operating system on the WMS-55PLUS2E hard drive.

NOTE: Some distributors and system integrators may have already pre-installed system software prior to shipment of your WMS-55PLUS2E.

Installing software requires an installed HDD. Software can be loaded in the WMS-55PLUS2E using any of below methods:

Method 1: Use the Ethernet
You can use the Ethernet port to download software from the Net to the HDD that has been pre-installed in WMS-55PLUS2E.

Method 2: Use a External CD-ROM
You can use the external CD-ROM to transmit the software to the HDD that has been pre-installed in the WMS-55PLUS2E.
In order to boot up system from USB-CD/DVD drive, please connect USB-CD/DVD drive, turn on computer power, keep on pressing "F11" key, go into BIOS quick boot menu, select "USB-CD ROM", WAIT FOR 20 SECONDS, then press enter, system OS will boot up from USB-CD/DVD drive directly.

Installing the Drivers

After installing your system software, you will be able to set up the LAN, VGA, Audio and USB functions. All drivers are stored in a CD disc, which can be found in your accessory pack. The various drivers and utilities in the disc have their own text files that help users install the drivers and understand their functions.

Dual touch by IR TOUCH (USB interface), optional

1. *Support Windows 7 dual touch gesture definition*
2. *In XP and Vista platform, AP developer can use SDK to develop own AP which can work as single-touch and dual-touch*
3. *Please find SDK in CD title*

Notice

1. *Unplug AC power cables and loose screws before withdrawing mother board tray.*
2. *Insert and withdraw mother board gently to avoid mother board try fallen and connector board damaged.*
3. *Fix screws after mother board tray inserted and connected firmly.*
4. *Use Kensington lock to secure PC kits.*
5. *Hand grips are detachable; please keep it in safety place for future usage.*
6. *For best picture quality, please set display resolution to 1920x1080.*

Remote Controller

The outlook of remote controller is shown as below.

Functions

a. Turn on/off LCD display

Press the POWER button to turn on/off display.

b. Select display video signal source

Press the DVI, VGA1, VGA2 to select display video input source (DVI and VGA1 input connectors are at the bottom side, VGA2 input connector is enclosed within chassis).

c. Synchronize video input signal and AD board output signal

Press the AUTO button to synchronize video input signal and AD board output signal to have the best LCD display quality.

d. Adjust display setting

Press MENU, EXIT, ENTER, ◢, ◤, ◄, ► buttons to adjust display effects in OSD (on screen display).

IMPORTANT: in WMS-55/46/55PLUS2E series products, VOLUME is not adjustable by remote controller. The VOLUME controller buttons on remote controller is reserved for WMS-55/46/55PLUS3 series.

Navigating the OSD Menu

a. Display OSD main menu

Press the MENU button to display the main menu on the screen.

b. Select the menu you want to adjust

Press the (▲/▼) buttons to shift the item selections up or down until it is desired, and then press the ENTER button to enter the sub-menu item.

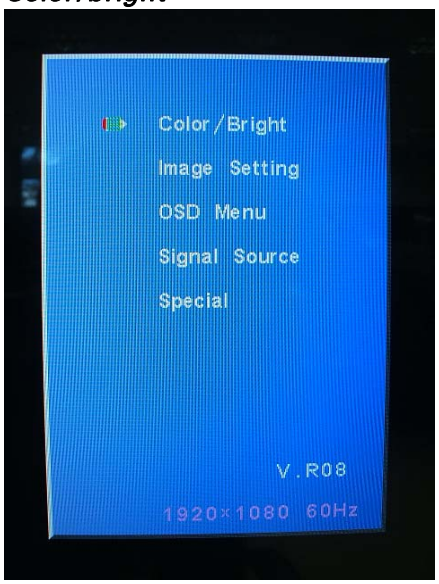
c. Adjust the setting

Press the ENTER button to enter the sub-menu and press the ◄ or ► button to adjust the value of setting. Once you adjust the value of setting, the value will be stored automatically.

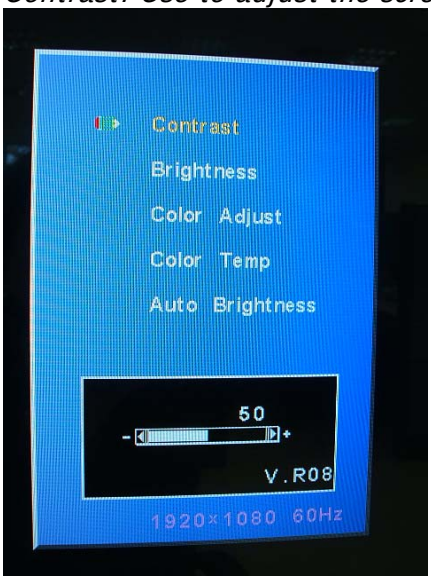
d. Exit the OSD menu

To return the regular screen viewing, press the EXIT button can close sub-menu one by one. If there is no command respond for 10 seconds (default, can be changed in OSD), OSD menu will be closed automatically.

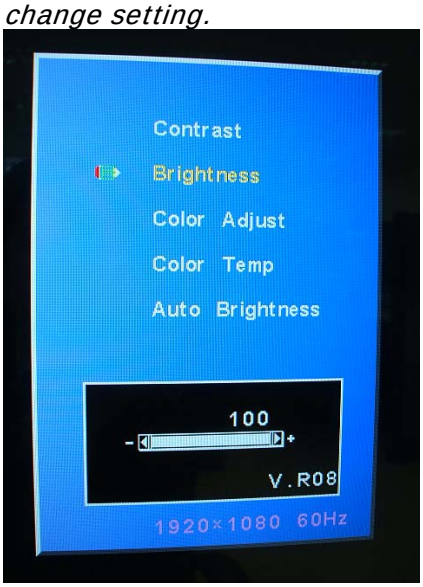
Color/bright



- *Contrast: Use to adjust the screen's contrast, press "►" to increase or "◄" to decrease setting.*

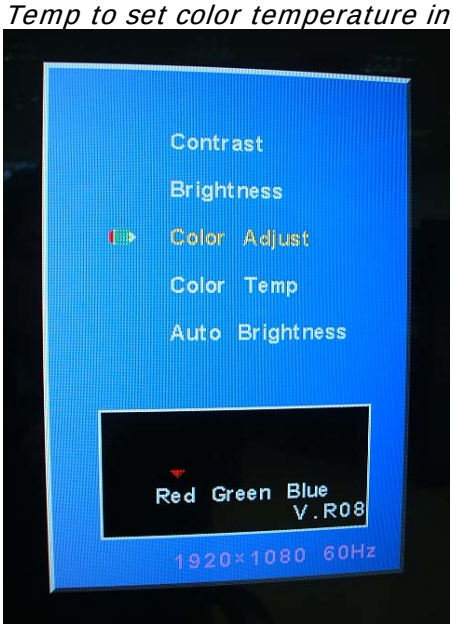


- *Brightness: Use to adjust the screen's LCD display brightness, press "►" to increase or "◄" to decrease setting. Please be reminded if auto brightness is ON, brightness cannot be adjusted manually. If you want to turn on/off auto brightness, please go to Auto Brightness item to change setting.*

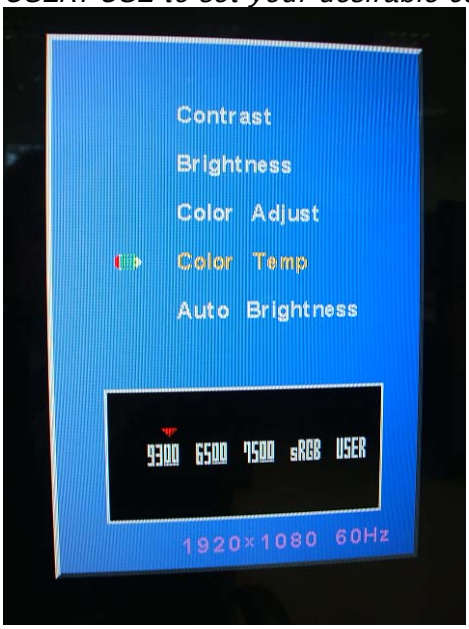


- *Color Adjust: Use to adjust the screen's color level, press Enter to choose color (Red or Green or Blue) you want to change, press "►" to increase or "◄" to decrease setting. Please be reminded*

only Color Temp setting is "USER", color level can be adjusted manually. Please go to Color Temp to set color temperature in "USER" mode before you adjust color level.



- *Color Temp: By pressing Enter, "►" or "◄" You can select the screen's color level of the white color field from the default color temperature settings.*
  9300K: Use to set value of monitor for the CIE coordinate 9300 color temperature (default)
  6500K: Use to set value of monitor for the CIE coordinate 6500 color temperature
  7500K: Use to set value of monitor for the CIE coordinate 7500 color temperature
  sRGB: Standard RGB color space created by Microsoft and HP
  USER: USE to set your desirable color level.



- *Auto Brightness: By enabling this function, LCD brightness level be automatically changed by referring to ambient lightness. The brighter ambient brightness the brighter LCD display display will be, the darker ambient brightness, the darker LCD brightness will be. There are 10 ranges of auto brightness between 50%~100% of original panel maximum brightness. If the function is enabling, the brightness will be adjusted automatically after 10 seconds when the ambient light changed.*

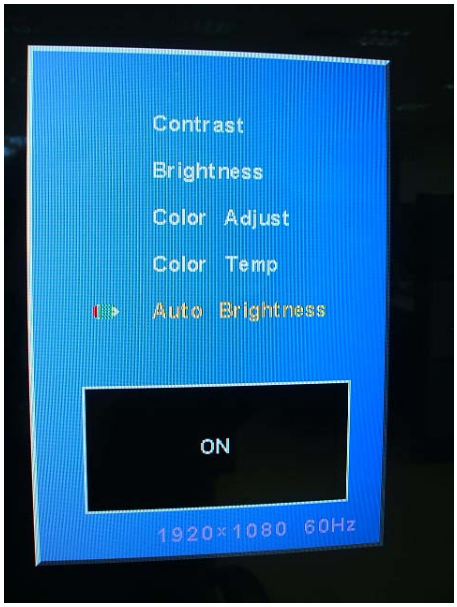
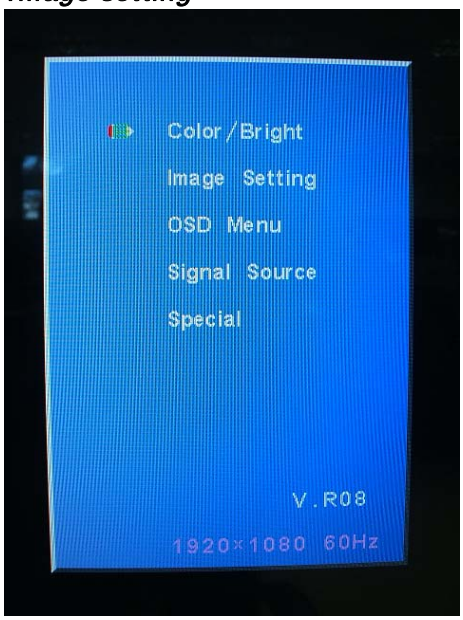
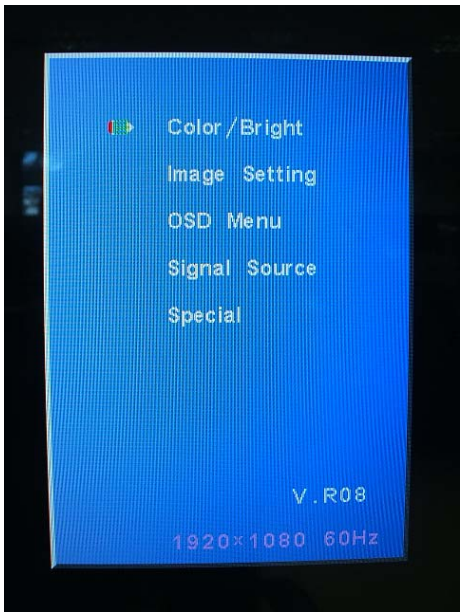


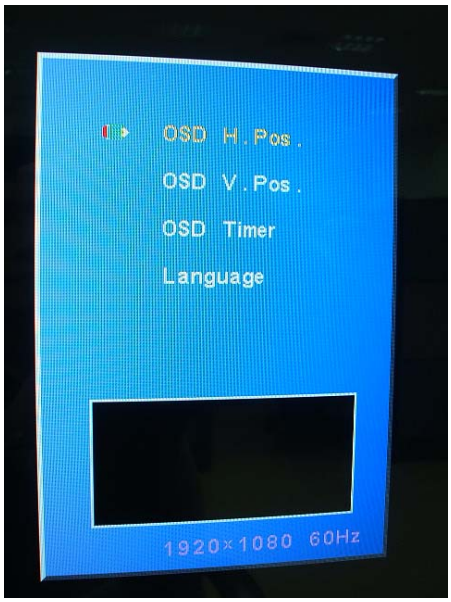
Image setting



- *Clock: Use to adjust VGA input signal ADC PLL value*
- *Phase: Use to check the VGA input signal phase*
- *Sharpness: Use to adjust the screen's sharpness by pressing "►" or "◄"*
- *H. Position: Use to adjust the VGA signal input image to the left or right on the screen by pressing "►" or "◄"*
- *V. Position: Use to adjust the VGA singal input image to the up or down on the screen by pressing "►" or "◄"*

OSD menu

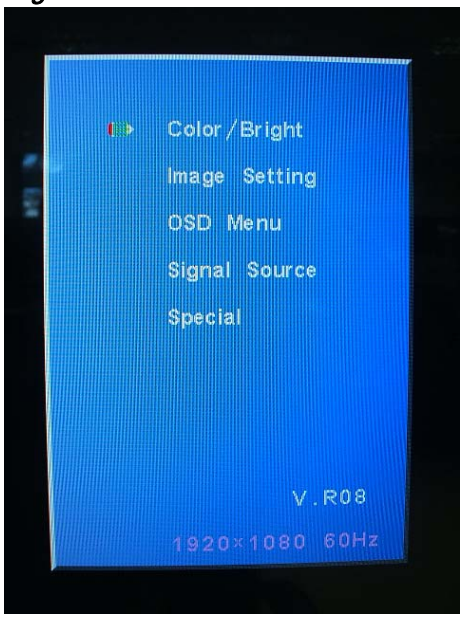


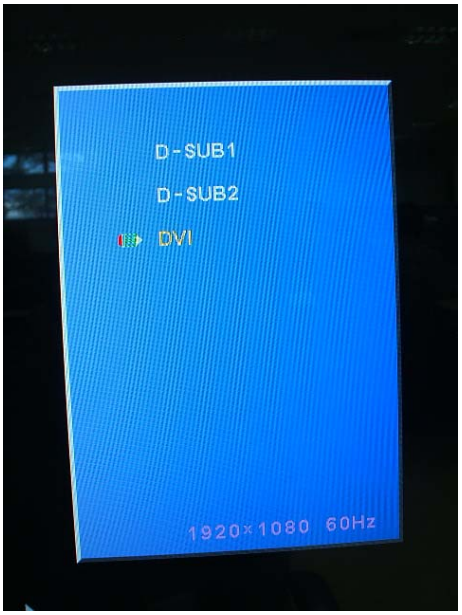


You can set up the OSD situation

- *OSD H. Pos: Use to adjust the OSD menu to the left or right on the screen by pressing "►" or "◄"*
- *OSD V. Pos: Use to adjust the OSD menu to the up or down on the screen by pressing "►" or "◄"*
- *OSD Timer: Setup the timeout of OSD while didn't input change by pressing "►" or "◄"*
  The default setting is 25 and the timeout time is 10 seconds
  If setting is 0, there will be no timeout time, OSD will be always shown on screen
  If the setting is 100, the timeout time is 30 seconds.
- *Language: Select language of OSD display by press the (◢/◤) buttons*

Signal Source

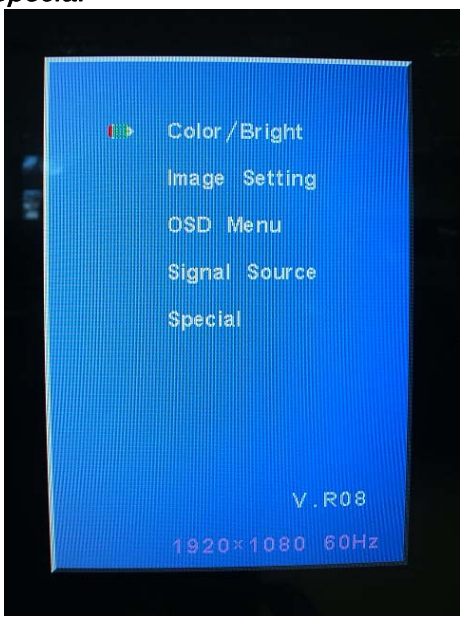


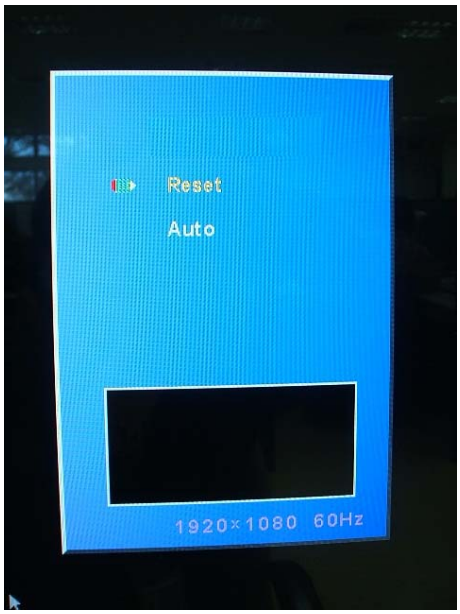


You can select the video input signal source by press the (◢/◤) buttons

- *D-SUB1: VGA signal input from VGA input connector at display bottom side*
- *D-SUB2: VGA signal input from VGA input connector enclosed within chassis*
- *DVI: DVI signal input from DVI input connector at display bottom side.*

Special





You can make OSD setting to be default or synchronize video input signals with AD board output signals.

- *Reset: To set OSD settings to be default values*
- *Auto: To synchronize video input signals with AD board output signals to have the best LCD display quality*

Summary

Color/Bright	● *Contrast (default 50)* ● *Brightness (default 100)* ● *Color adjust (default 50)* ● *Color temp (default 9300)* ● *Auto Brightness (default ON)*	***Image setting***	● *Clock (for VGA input only, default 50)* ● *Phase (for VGA input only, default 50)* ● *Sharpness* ● *H position (for VGA input only, default 50)* ● *V position (for VGA input only, default 50)*
OSD menu	● *OSD H position* ● *OSD V position* ● *OSD timer (default 25)* ● *OSD language (default English)*	***Signal source***	● *D-sub1* ● *D-sub2* ● *DVI*
Special	● *Reset* ● *Auto*		

Trouble Shooting

If your monitor fails to operate correctly, consult the following chart for possible solution before calling for repairs:

Condition	*Check Point*
1. The picture does not appear	● *Check if the signal cable is firmly seated in the socket.* ● *Check if the Power is ON at the computer* ● *Check if the brightness control is at the appropriate position, not at the minimum.* ● *State the monitor is powered on and the LED of power is GREEN, plug out the VGA cable and plug in again.* ● *Check if computer is turned on*
2. The screen is not synchronized	● *Check if the signal cable is firmly seated in the socket.* ● *Check if the output level matches the input level of your computer.* ● *Make sure the signal timings of the computer system are within the specification of the monitor.* ● *If your computer was working with a CRT monitor, you should check the current signal timing and turn off your computer before you connect the VGA Cable to this monitor.* ● *Use the "AUTO" key on remote control to automatically adjust the display timing scan.*
3. The position of the screen is not in the center	● *Adjust the H-position, and V-position, or perform the AUTO adjustment.*
4. The screen is too bright (too dark)	● *Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).*
5. The screen is shaking or waving	● *Press the "AUTO" - adjustment control by remote control or OSD to adjust. Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor. Check if the specific voltage is applied.* ● *Check if the signal timing of the computer system (or engine box) is within the specification of monitor.*
6. No external sound	*1. Power on WMS-55PLUS2E* *2. Connect external speakers to lineout port* *3. Set audio output to Realtek* *a. Click "Start button"* *b. Click "control panel",* *c. Click "sounds and audio devices"* *d. choose "Audio" sheet, check "Sound playback", set "Default device" to be "Realtek HD audio output"* *4. Volume control* *a. click "Realtek HD audio manager" icon (at right bottom side)* *b. choose "Devices and Mixer" sheet* *c. The main volume can be adjusted by rotating the Playback switch* *5.* ***IMPORTANT: in WMS-55/46/55PLUS2E series products, VOLUME is not adjustable by remote controller. The VOLUME controller buttons on remote controller is reserved for WMS-55/46/55PLUS3 series.***

If you are unable to correct the fault by following this chart, stop using your monitor and contact your distributor or dealer for further assistance.

BIOS Setup

BIOS Introduction

The Award BIOS (Basic Input/Output System) installed in your computer system's ROM supports Intel processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial ports and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

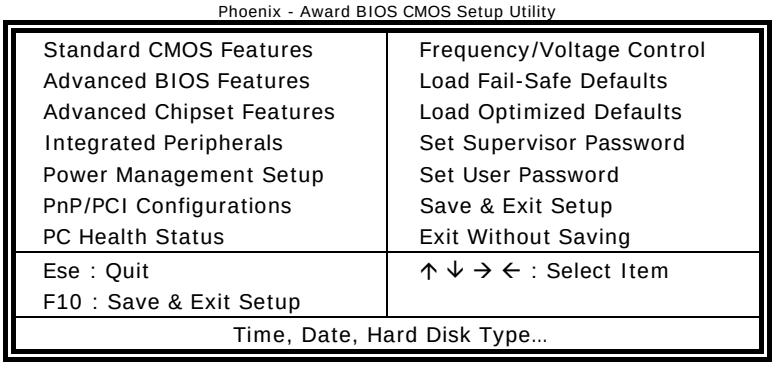
BIOS Set up

The Award BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the Award BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

Press <DEL> to Enter Setup

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.



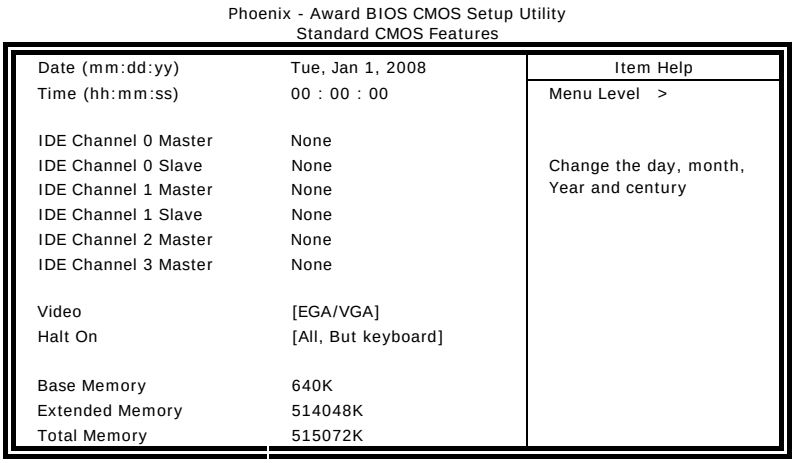
The section below the setup items of the Main Menu displays the control keys for this menu. At the bottom of the Main Menu just below the control keys section, there is another section, which displays information on the currently highlighted item in the list.

***Note**: If the system cannot boot after making and saving system changes with Setup, the Award BIOS supports an override to the CMOS settings that resets your system to its default.*

***Warning:** It is strongly recommended that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and your system manufacturer to provide the absolute maximum performance and reliability. Changing the defaults could cause the system to become unstable and crash in some cases.*

Standard CMOS Features

"Standard CMOS Features" choice allows you to record some basic hardware configurations in your computer system and set the system clock and error handling. If the motherboard is already installed in a working system, you will not need to select this option. You will need to run the Standard CMOS option, however, if you change your system hardware configurations, the onboard battery fails, or the configuration stored in the CMOS memory was lost or damaged.


Phoenix - Award BIOS CMOS Setup Utility
Standard CMOS Features
Date (mm:dd:yy) Tue, Jan 1, 2008
Time (hh:mm:ss) 00 : 00 : 00
IDE Channel 0 Master None
IDE Channel 0 Slave None
IDE Channel 1 Master None
IDE Channel 1 Slave None
IDE Channel 2 Master None
IDE Channel 3 Master None
Video [EGA/VGA]
Halt On [All, But keyboard]
Base Memory 640K
Extended Memory 514048K
Total Memory 515072K
Item Help
Menu Level >
Change the day, month,
Year and century

At the bottom of the menu are the control keys for use on this menu. If you need any help in each item field, you can press the <F1> key. It will display the relevant information to help you. The memory display at the lower right-hand side of the menu is read-only. It will adjust automatically according to the memory changed. The following describes each item of this menu.

Date

The date format is:

Day : **Sun to Sat**
Month : **1 to 12**
Date : **1 to 31**
Year : **1999 to 2099**

To set the date, highlight the "Date" field and use the PageUp/ PageDown or +/- keys to set the current time.

Time

The time format is: **Hour : 00 to 23**
Minute : 00 to 59
Second : 00 to 59

To set the time, highlight the "Time" field and use the <PgUp>/ <PgDn> or +/- keys to set the current time.

IDE Channel Master/Slave

The onboard Serial ATA connectors provide Primary and Secondary channels for connecting up to four Serial ATA hard disks. Each channel can support up to two hard disks; the first is the "Master" and the second is the "Slave".

Press <Enter> to configure the hard disk. The selections include Auto, Manual, and None. Select 'Manual' to define the drive information manually. You will be asked to enter the following items.

Capacity: Capacity/size of the hard disk drive
Cylinder: Number of cylinders
Head: Number of read/write heads
Precomp: Write precompensation
Landing Zone: Landing zone
Sector: Number of sectors

The Access Mode selections are as follows:
Large (for MS-DOS only)
Auto

Remarks: The main board supports 4 serial ATA ports and are represented in this setting as IDE Channel 2.

Video

This field selects the type of video display card installed in your system. You can choose the following video display cards:

EGA/VGA	For EGA, VGA, SEGA, SVGA or PGA monitor adapters. (default)
CGA 40	Power up in 40 column mode.
CGA 80	Power up in 80 column mode.
MONO	For Hercules or MDA adapters.

Halt On

This field determines whether or not the system will halt if an error is detected during power up.

All errors	Whenever the BIOS detect a non-fatal error, the system will stop and you will be prompted.
No errors	The system boot will not be halted for any error that may be detected.
All, But Keyboard	The system boot will not be halted for a keyboard error; it will stop for all other errors

Advanced BIOS Features

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.

Phoenix - Award BIOS CMOS Setup Utility
Advanced BIOS Features

CPU Feature	Press Enter	ITEM HELP
Hard Disk Boot Priority	Press Enter	
Virus Warning	Disabled	Menu Level >
CPU L1 and L2 Cache	Enabled	
CPU L3	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	USB-CDROM	
Second Boot Device	Hard Disk	
Third Boot Device	LAN	
Boot Other Device	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
Typematic Rate (Chars/Sec)	6	
Typematic Delay (Msec)	250	
Security Option	Setup	
APIC Mode	Enabled	
MPS Version Control for OS	1.4	
OS Select For DRAM>64MB	Non-OS2	
Report No FDD For WIN 95	Yes	

CPU Feature

Press Enter to configure the settings relevant to CPU Feature.

Hard Disk Boot Priority

With the field, there is the option to choose, aside from the hard disks connected, “Bootable add-in Cards” which refers to other external devices.

Virus Warning

If this option is enabled, an alarm message will be displayed when trying to write on the boot sector or on the partition table on the disk, which is typical of the virus.

CPU L1 and L2 Cache

Cache memory is additional memory that is much faster than conventional DRAM (system memory). CPUs from 486-type on up contain internal cache memory, and most, but not all, modern PCs have additional (external) cache memory. When the CPU requests data, the system transfers the requested data from the main DRAM into cache memory, for even faster access by the CPU. These items allow you to enable (speed up memory access) or disable the cache function. By default, these items are Enabled.

CPU L3 Cache

Enabled or Disabled

Quick Power On Self Test

When enabled, this field speeds up the Power On Self Test (POST) after the system is turned on. If it is set to *Enabled*, BIOS will skip some items.

First/Second/Third Boot Device

These fields determine the drive that the system searches first for an operating system. The options available include *LS120*, *Hard Disk*, *CDROM, ZIP100*, *USB-Floppy, USB-ZIP*, *USB-CDROM, LAN* and *Disable*.

Boot Other Device

These fields allow the system to search for an OS from other devices other than the ones selected in the First/Second/Third Boot Device.

Boot Up NumLock Status

This allows you to activate the NumLock function after you power up the system.

Gate A20 Option

This field allows you to select how Gate A20 is worked. Gate A20 is a device used to address memory above 1 MB.

Typematic Rate Setting
When disabled, continually holding down a key on your keyboard will generate only one instance. When enabled, you can set the two typematic controls listed next. By default, this field is set to ***Disabled.***

Typematic Rate (Chars/Sec)
When the typematic rate is enabled, the system registers repeated keystrokes speeds. Settings are from 6 to 30 characters per second.

Typematic Delay (Msec)
When the typematic rate is enabled, this item allows you to set the time interval for displaying the first and second characters. By default, this item is set to ***250msec.***

Security Option
This field allows you to limit access to the System and Setup. The default value is ***Setup***. When you select *System,* the system prompts for the User Password every time you boot up. When you select *Setup,* the system always boots up and prompts for the Supervisor Password only when the Setup utility is called up.

APIC Mode
APIC stands for Advanced Programmable Interrupt Controller. The default setting is ***Enabled***.

MPS Version Control for OS
This option is specifies the MPS (Multiprocessor Specification) version for your operating system. MPS version 1.4 added extended configuration tables to improve support for multiple PCI bus configurations and improve future expandability. The default setting is ***1.4***.

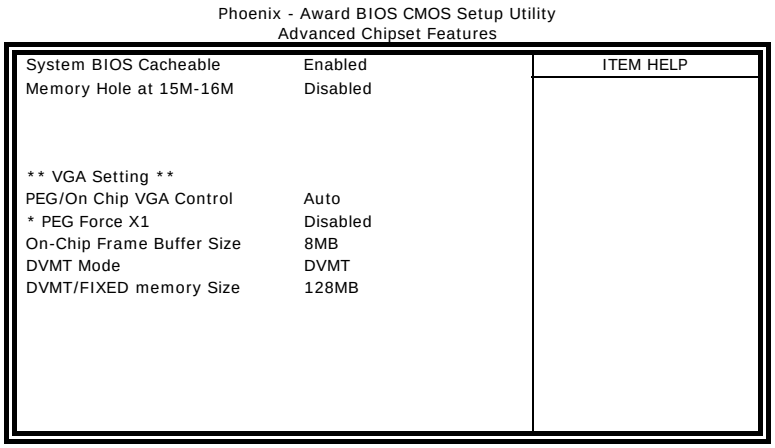
OS Select for DRAM > 64MB
This option allows the system to access greater than 64MB of DRAM memory when used with OS/2 that depends on certain BIOS calls to access memory. The default setting is ***Non-OS/2***.

Report No FDD For WIN 95

If you are using Windows 95/98 without a floppy disk drive, select Enabled to release IRQ6. This is required to pass Windows 95/98's SCT test. You should also disable the Onboard FDC Controller in the Integrated Peripherals screen when there's no floppy drive in the system. If you set this feature to Disabled, the BIOS will not report the missing floppy drive to Win95/98.

Advanced Chipset Features

This Setup menu controls the configuration of the chipset.



System BIOS Cacheable

The setting of *Enabled* allows caching of the system BIOS ROM at F000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

Memory Hole At 15M-16M

In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory space below 16 MB. The choices are *Enabled* and *Disabled*.

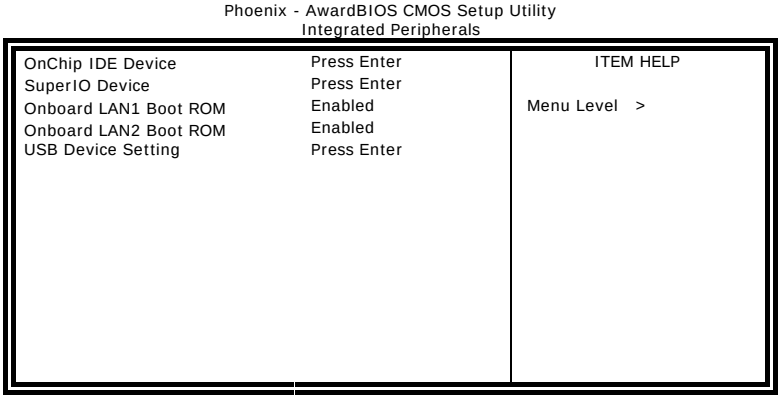
VGA Setting

The fields under the VGA Setting and their default settings are:

PEG/On Chip VGA Control: Onchip VGA
On-Chip Frame Buffer Size: 8MB
DVMT Mode: DVMT
DVMT/Fixed Memory Size: 128MB
Boot Display: Auto
Panel Scaling: Auto
Panel Number: 4

Integrated Peripherals

This section sets configurations for your hard disk and other integrated peripherals.



OnChip IDE Device

IDE HDD Block Mode

This field allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive.

IDE DMA transfer access

This field allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive.

IDE Primary/Secondary Master/Slave PIO

These fields allow your system hard disk controller to work faster. Rather than have the BIOS issue a series of commands that transfer to or from the disk drive, PIO (Programmed Input/Output) allows the BIOS to communicate with the controller and CPU directly.

The system supports five modes, numbered from 0 (default) to 4, which primarily differ in timing. When Auto is selected, the BIOS will select the best available mode.

IDE Primary/Secondary Master/Slave UDMA

These fields allow your system to improve disk I/O throughput to 33Mb/sec with the Ultra DMA/33 feature. The options are *Auto* and *Disabled*.

OnChip Secondary PCI IDE

This field, by default, is enabled

LEGACY Mode Support

When the Serial ATA (SATA) is set with the legacy mode enabled, then the SATA is set to the conventional IDE mode. Legacy mode is otherwise known as compatible mode.

Super IO Device

Power ON Function

This field is related to how the system is powered on – such as with the use of conventional power button, keyboard or hot keys. The default is ***BUTTON ONLY***.

Onboard Serial Port

These fields allow you to select the onboard serial ports and their addresses. The default values for these ports are:

Serial Port 1	3F8/IRQ4
Serial Port 2	2F8/IRQ3

UART Mode Select

This field determines the UART 2 mode in your computer. The default value is ***Normal***. Other options include *IrDA* and *ASKIR*.

Onboard Parallel Port

These fields allow you to select the onboard parallel ports and their addresses.

Parallel Port mode
These fields allow you to select the onboard parallel ports and set their modes.

PWRON After PWR-Fail
This field sets the system power status whether *on or off* when power returns to the system from a power failure situation.

Onboard Lan 1/2 Boot ROM
These fields allow you to decide whether to invoke the boot ROM of the onboard LAN chip

USB Device Setting

USB 1.0 Controller
The options for this field are *Enabled* and *Disabled*. By default, this field is set to ***Enabled***.

USB 2.0 Controller
The options for this field are *Enabled* and *Disabled*. By default, this field is set to ***Enabled***. In order to use USB 2.0, necessary OS drivers must be installed first. ***Please update your system to Windows 2000 SP4 or Windows XP SP2.***

USB Operation Mode
The options for this field are *Full/Low speed* and *High speed*. By default, this field is set to ***High speed***.

USB Keyboard Function
The options for this field are *Enabled* and *Disabled*. By default, this field is set to ***Enabled***.

USB Mouse Function
The options for this field are *Enabled* and *Disabled*. By default, this field is set to ***Enabled***.

USB Storage Function
The options for this field are *Enabled* and *Disabled*. By default, this field is set to ***Enabled***.

Power Management Setup

Phoenix - AwardBIOS CMOS Setup Utility
Power Management Setup

		ITEM HELP
ACPI Function	Enabled	
ACPI Suspend type	S3(STR)	
RUN VGABIOS if S3 Resume	Auto	Menu Level >
Power Management	User Define	
Video Off Method	DPMS	
Video Off In Suspend	Yes	
Suspend Type	Stop Grant	
Modem Use IRQ	3	
Suspend Mode	Disabled	
HDD Power Down	Disabled	
Soft-Off by PWR-BTTN	Instant-Off	
Wake-Up by PCI Card	Disabled	
Power On by Ring	Disabled	
Wake From on board Ethernet	Disabled	
Resume by Alarm	Disabled	
Date (of Month) Alarm	0	
Time (hh:mm:ss) Alarm	0 : 0 : 0	
** Reload Global Timer Events **		
Primary IDE 0	Disabled	
Primary IDE 1	Disabled	
Secondary IDE 0	Disabled	
Secondary IDE 1	Disabled	
FDD, COM, LPT Port	Disabled	
PCI PIRQ[A-D] #	Disabled	

ACPI Function
Enable this function to support ACPI (Advance Configuration and Power Interface).

ACPI Suspend
The default setting of the ACPI Suspend mode is ***S3(STR)***.

RUN VGABIOS if S3 Resume
The default setting of this field is ***Auto***.

Power Management
This field allows you to select the type of power saving management modes. There are three selections for Power Management.

User Define	Each of the ranges is from 1 min. to 1hr. Except for HDD Power Down which ranges from 1 min. to 15 min.
Min. Power Saving	Minimum power management
Max. Power Saving	Maximum power management.

Video Off Method
This field defines the Video Off features. There are three options.

Blank Screen	Writes blanks to the video buffer.
V/H SYNC + Blank	Blank the screen and turn off vertical and horizontal scanning.
DPMS	Default setting, allows BIOS to control the video display.

Video Off In Suspend
When enabled, the video is off in suspend mode. The default setting is ***Yes***.

Suspend Type
The default setting for the Suspend Type field is ***Stop Grant***.

Modem Use IRQ
This field sets the IRQ used by the Modem. By default, the setting is ***3***.

Suspend Mode
When enabled, and after the set time of system inactivity, all devices except the CPU will be shut off. By default, the setting is ***Disabled***.

HDD Power Down

When enabled, and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

Soft-Off by PWR-BTTN
This field defines the power-off mode when using an ATX power supply. The *Instant Off* mode allows powering off immediately upon pressing the power button. In the *Delay 4 Sec* mode, the system powers off when the power button is pressed for more than four seconds or enters the suspend mode when pressed for less than 4 seconds.

Power on by Ring
By default, this field is disabled.

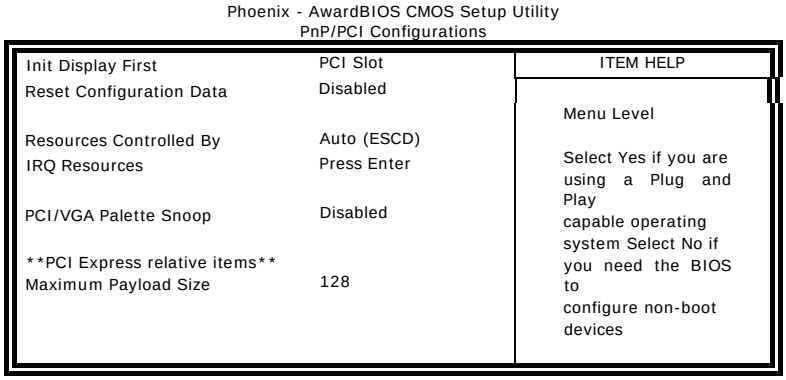
Wake from OnBoard Ethernet
This field enables or disables the power on of the system through the LAN.

Resume by Alarm
This field enables or disables the resumption of the system operation. When enabled, the user is allowed to set the *Date* and *Time*.

Reload Global Timer Events
The HDD, FDD, COM, LPT Ports, and PCI PIRQ are I/O events that can prevent the system from entering a power saving mode or can awaken the system from such a mode. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service.

PNP/PCI Configurations

This option configures the PCI bus system. All PCI bus systems on the system use INT#, thus all installed PCI cards must be set to this value.



Init Display First

The default setting is ***PCI Slot***.

Reset Configuration Data

This field allows you to determine whether to reset the configuration data or not. The default value is ***Disabled.***

Resources Controlled by

This PnP BIOS can configure all of the boot and compatible devices with the use of a PnP operating system such as Windows 95.

PCI/VGA Palette Snoop

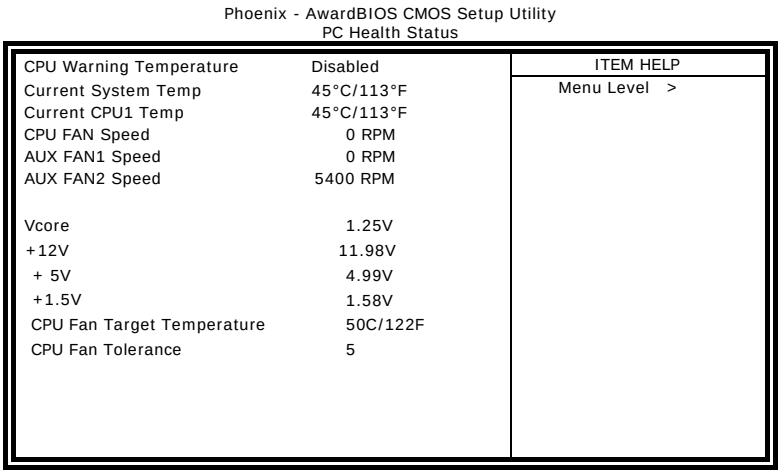
Some non-standard VGA display cards may not show colors properly. This field allows you to set whether or not MPEG ISA/VESA VGA cards can work with PCI/VGA. When this field is enabled, a PCI/VGA can work with an MPEG ISA/VESA VGA card. When this field is disabled, a PCI/VGA cannot work with an MPEG ISA/VESA card.

Maximum Payload Size

The default setting of the PCI Express Maximum Payload Size is 128.

PC Health Status

This section shows the parameters in determining the PC Health Status. These parameters include temperatures, fan speeds and voltages.



CPU Warning Temperature

This field allows the user to set the temperature so that when the temperature is reached, the system sounds a warning. This function can help prevent damage to the system that is caused by overheating.

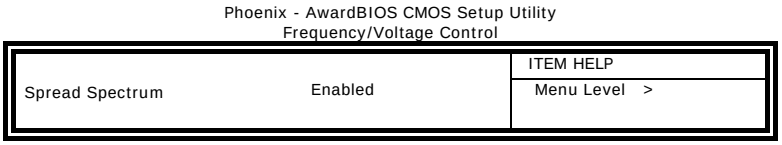
CPU Fan Target Temperature

This field allows the user to set the CPU temperature to start CPU fan start running.

CPU Fan Tolerance

This field allows the user to set the CPU fan rotation tolerance.

Frequency/Voltage Control



Auto Detect PCI Clk
This field enables or disables the auto detection of the PCI clock.

Spread Spectrum
This field sets the value of the spread spectrum. The default setting is ***Enabled***.

Load Fail-Safe Defaults
This option allows you to load the troubleshooting default values permanently stored in the BIOS ROM. These default settings are non-optimal and disable all high-performance features.

Load Optimized Defaults
This option allows you to load the default values to your system configuration. These default settings are optimal and enable all high performance features.

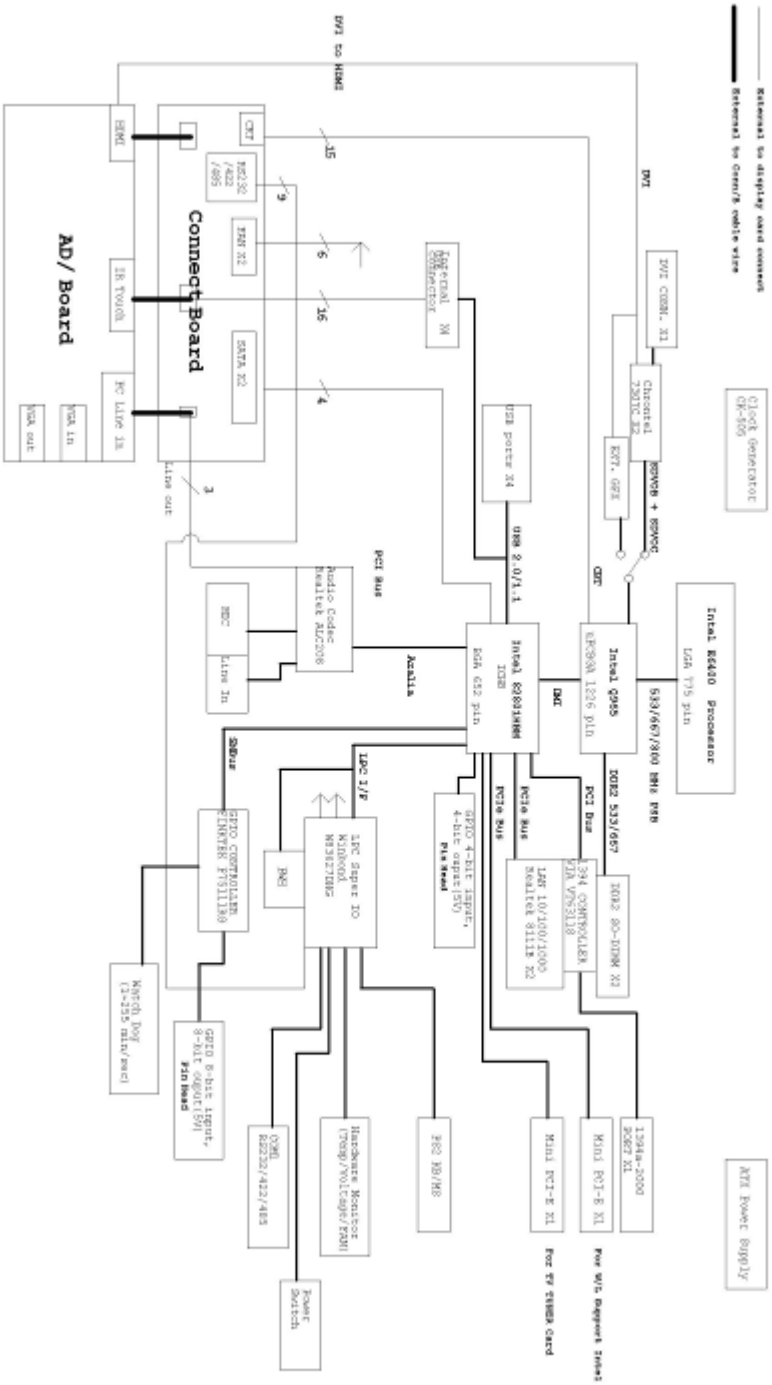
Set Supervisor Password
These two options set the system password. Supervisor Password sets a password that will be used to protect the system and Setup utility. User Password sets a password that will be used exclusively on the system. To specify a password, highlight the type you want and press <Enter>. The Enter Password: message prompts on the screen. Type the password, up to eight characters in length, and press <Enter>. The system confirms your password by asking you to type it again. After setting a password, the screen automatically returns to the main screen.

To disable a password, just press the <Enter> key when you are prompted to enter the password. A message will confirm the password to be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

Save & Exit Setup
This option allows you to determine whether or not to accept the modifications. If you type “Y”, you will quit the setup utility and save all changes into the CMOS memory. If you type “N”, you will return to Setup utility.

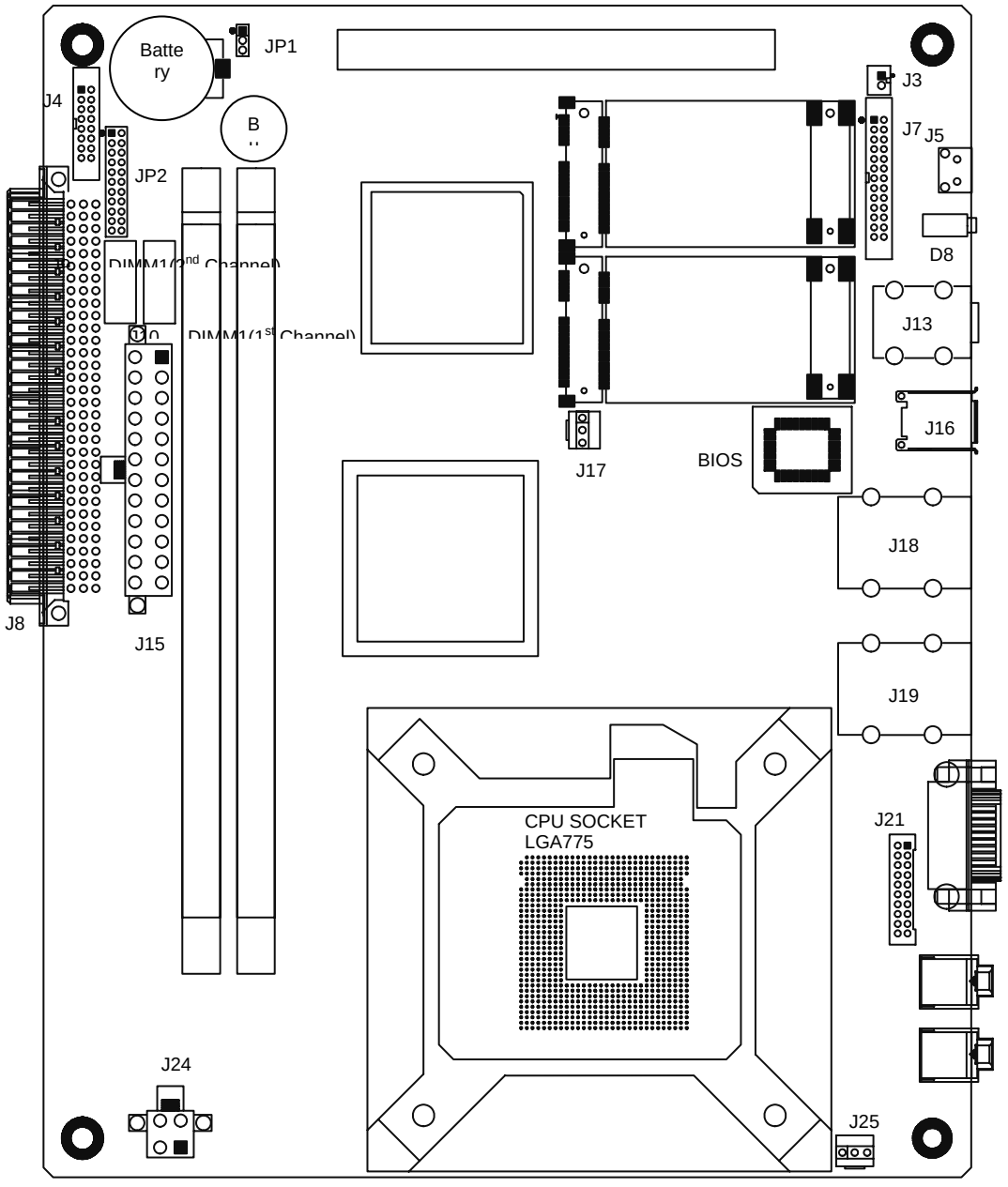
Exit Without Saving
Select this option to exit the Setup utility without saving the changes you have made in this session. Typing “Y” will quit the Setup utility without saving the modifications. Typing “N” will return you to Setup utility.

Block diagram



Jumper & Connector Definition

Note: *Some of jumpers or connectors will be removed base on system configuration.*



JP1-Clear CMOS

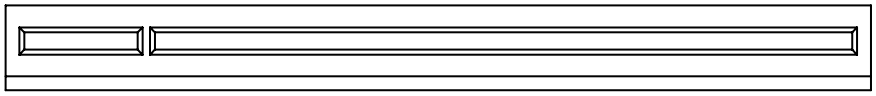
Description	Jumper Setting
Normal	*1-2*
CMOS	2-3

Description	Jumper Setting
Cleared	

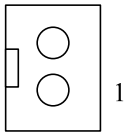
JP2-COM2 Function Selection

Description	Jumper Setting
RS-232	***5-6, 9-11, 10-12, 15-17, 16-18***
RS-422	3-4, 7-9, 8-10, 13-15, 14-16, 21-22
RS-485	*1-2, 7-9, 8-10, 19-20*

J1-PCI Express x16 Slot

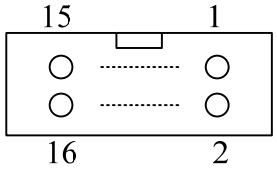


J3-Power Button



Pin #	Description
1	+5V
2	Power On

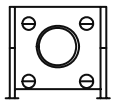
J4-CRT Interface



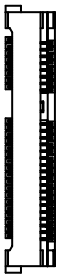
Pin #	Description	Pin #	Description
1	Red	2	Green
3	Blue	4	Ground
5	Ground	6	Ground
7	Ground	8	Ground
9	+5V	10	Ground

Pin #	Description	Pin #	Description
11	NC	12	DDC Data
13	Horizontal Sync	14	Vertical Sync
15	DDC Clock	16	NC

J5-Reset Button



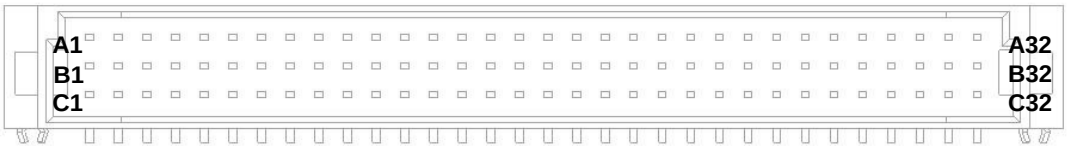
J6, J14-Mini PCI Express Socket



J7-Parallel Port

Pin #	Description	Pin #	Description
1	Strobe	2	Auto Feed
3	Data Bit 0	4	Error
5	Data Bit 1	6	Initialize
7	Data Bit 2	8	Select In
9	Data Bit 3	10	Ground
11	Data Bit 4	12	Ground
13	Data Bit 5	14	Ground
15	Data Bit 6	16	Ground
17	Data Bit 7	18	Ground
19	Acknowledge	20	Ground
21	Busy	22	Ground
23	Paper End	24	Ground
25	Select	26	NC

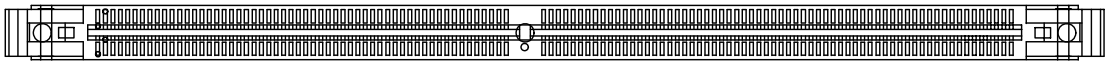
J8-Docking Interface



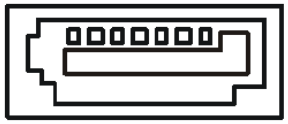
Pin#	Description	Pin#	Description	Pin#	Description
A1	System +12V	B1	System +12V	C1	System +12V
A2	System +12V	B2	System +12V	C2	System +5V Standby
A3	System +5V Standby	B3	System +5V	C3	Ground
A4	System +5V	B4	System +5V	C4	Ground
A5	System +5V	B5	System +5V	C5	Ground
A6	System +5V	B6	System +5V	C6	Ground
A7	System +5V	B7	System +5V	C7	Ground
A8	System +5V	B8	System +5V	C8	Ground
A9	System +5V	B9	System +5V	C9	Ground
A10	System +3.3V	B10	System +3.3V	C10	Ground
A11	System +3.3V	B11	System +3.3V	C11	Ground
A12	Power On	B12	ATX Power Good	C12	Ground
A13	Fan1 Speed Detection	B13	Fan1 Speed Control	C13	Ground
A14	RS-232:DCD RS-422:TX- RS-485:Bi-Data-	B14	RS-232:DSR RS-422:N/A RS-485:N/A	C14	RS-232:RX RS-422:TX+ RS-485:Bi-Data+
A15	RS-232:RTS RS-422:N/A RS-485:N/A	B15	RS-232:TX RS-422:RX+ RS-485:N/A	C15	RS-232:CTS RS-422:N/A RS-485:N/A
A16	RS-232:DTR RS-422:RX- RS-485:N/A	B16	RS-232:RI RS-422:N/A RS-485:N/A	C16	CRT:Red

Pin#	Description	Pin#	Description	Pin#	Description
A17	CRT:Green	B17	CRT:Blue	C17	CRT:DDC Data
A18	CRT:DDC Clock	B18	CRT:Hsync	C18	CRT:Vsync
A19	CRT:+5V	B19	Audio:Plug Detection	C19	Ground
A20	Audio:Right Out	B20	Audio:left Out	C20	Audio:Ground
A21	USB:Port5+	B21	USB:Port5-	C21	USB:Port5,6 +5V
A22	USB:Port6+	B22	USB:Port6-	C22	USB:Port5,6 +5V
A23	USB:Port7+	B23	USB:Port7-	C23	USB:Port7,8 +5V
A24	USB:Port8+	B24	USB:Port8-	C24	USB:Port7,8 +5V
A25	SATA: Port3 TX+	B25	SATA: Port3 TX-	C25	Ground
A26	SATA: Port3 RX-	B26	SATA: Port3 RX+	C26	Ground
A27	Fan2 Speed Detection	B27	Fan2 Speed Control	C27	Ground
A28	SATA: Port4 TX+	B28	SATA: Port4 TX-	C28	Ground
A29	SATA: Port4 RX-	B29	SATA: Port4 RX+	C29	Ground
A30	Ground	B30	CPU +12V	C30	Ground
A31	CPU +12V	B31	CPU +12V	C31	Ground
A32	CPU +12V	B32	CPU +12V	C32	Ground

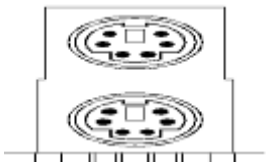
J9,J10-DDR2 Socket



J11,J12-SATA Connector



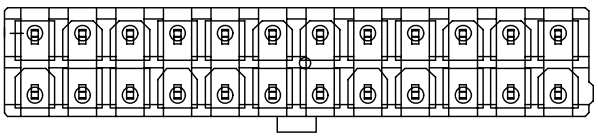
J13-PS2 Keyboard/Mouse



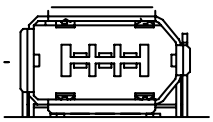
Mouse

Keyboard

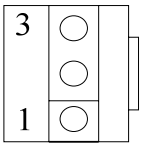
J15-ATX24 Power Connector



J16-IEEE1394 Connector

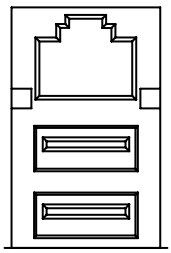


J17-System Fan Connector(For North Bridge)

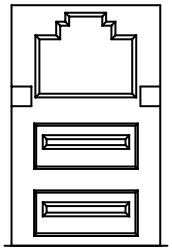


Pin #	Description
1	Ground
2	Fan PWM Control
3	Fan RPM Signal

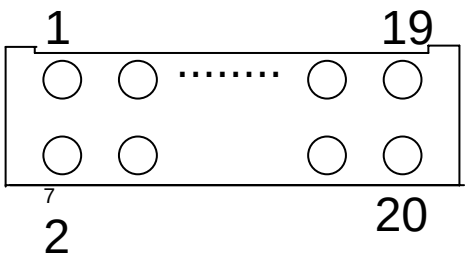
J18-USB Port 1,2 + Ethernet 1



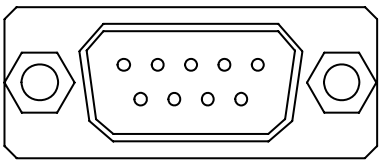
J19-USB Port 3,4 + Ethernet 2



J20-COM port 1(RS-232)

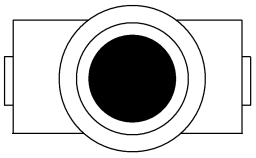


J21-GPIO Interface

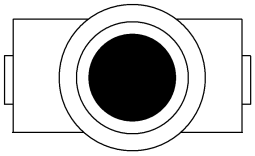


Pin #	Description	Pin #	Description
1	GPO 1	2	GPI 1
3	GPO 2	4	GPI 2
5	GPO 3	6	GPI 3
7	GPO 4	8	GPI 4
9	GPO 5	10	GPI 5
11	GPO 6	12	GPI 6
13	GPO 7	14	GPI 7
15	GPO 8	16	GPI 8
17	+5V	18	+5V
19	Ground	20	Ground

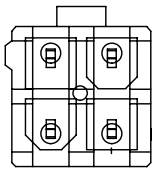
J22-Audio Line In



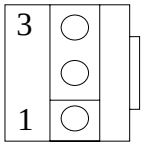
J23-Microphone In



J24-CPU ATX-12V

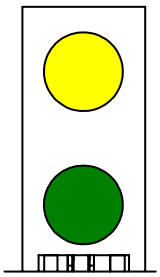


J25-CPU Fan Connector



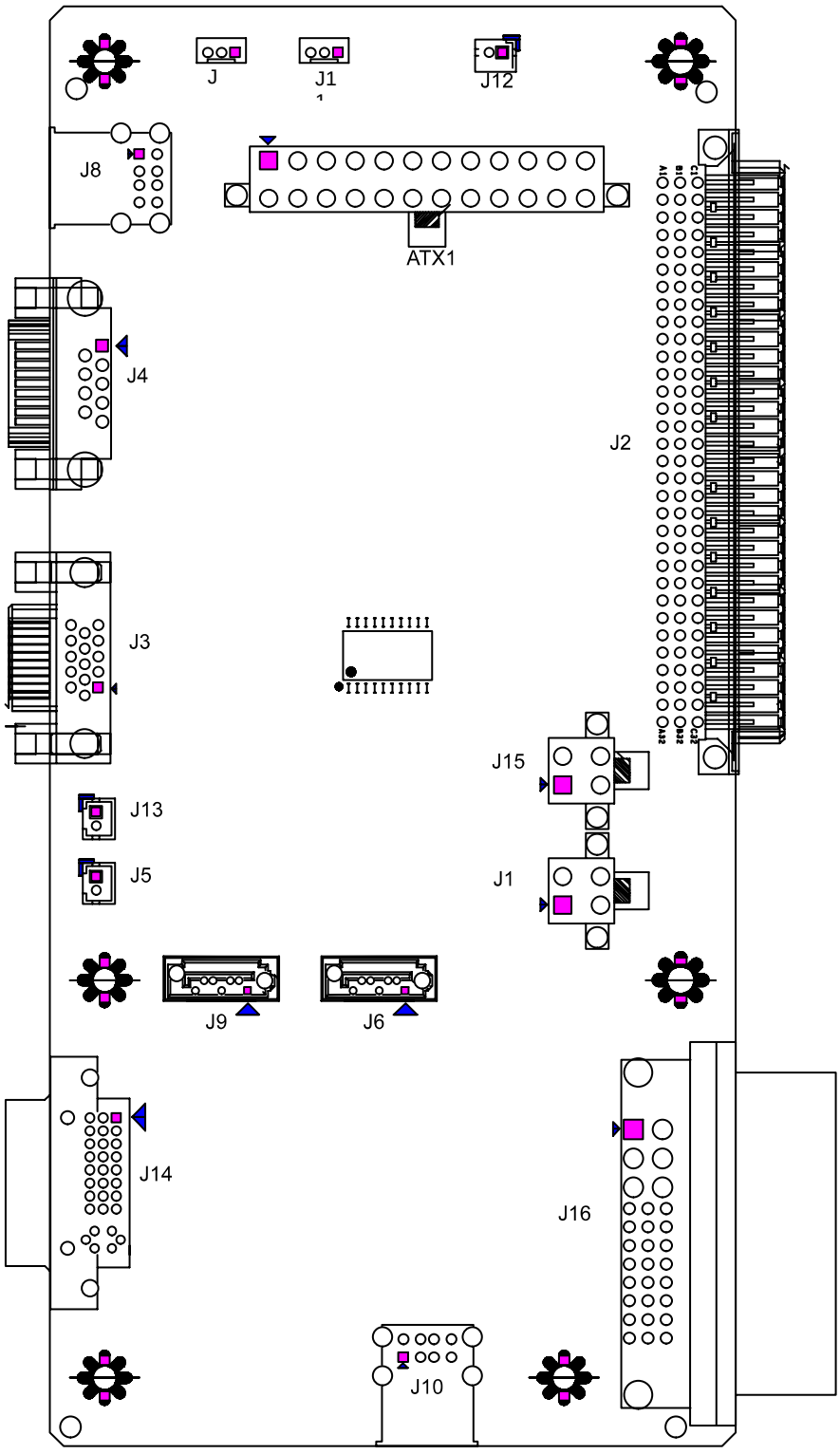
Pin #	Description
1	Ground
2	Fan PWM Control
3	Fan RPM Signal

D8-Power & HDD Active Indicators

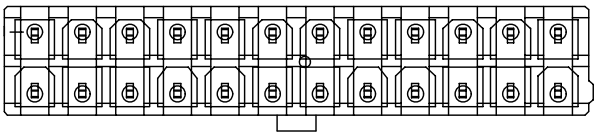


Connection Board Connector Definition

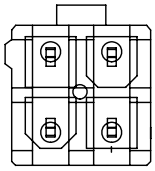
Note: *Some of jumpers or connectors will be removed base on system configuration.*



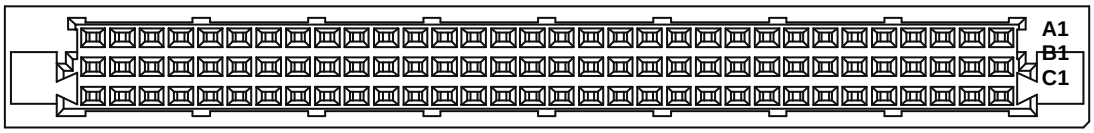
ATX1 - ATX24 Power Connector



J1 - ATX-12V



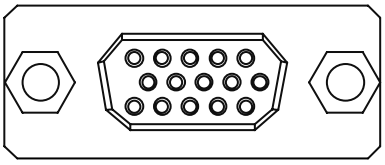
J2 - Docking Interface 1



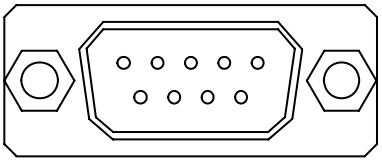
Pin#	Description	Pin#	Description	Pin#	Description
A1	System +12V	B1	System +12V	C1	System +12V
A2	System +12V	B2	System +12V	C2	System +5V Standby
A3	System +5V Standby	B3	System +5V	C3	Ground
A4	System +5V	B4	System +5V	C4	Ground
A5	System +5V	B5	System +5V	C5	Ground
A6	System +5V	B6	System +5V	C6	Ground
A7	System +5V	B7	System +5V	C7	Ground
A8	System +5V	B8	System +5V	C8	Ground
A9	System +5V	B9	System +5V	C9	Ground
A10	System +3.3V	B10	System +3.3V	C10	Ground
A11	System +3.3V	B11	System +3.3V	C11	Ground
A12	Power On	B12	ATX Power Good	C12	Ground
A13	Fan1 Speed Detection	B13	Fan1 Speed Control	C13	Ground
A14	RS-232:DCD RS-422:TX- RS-485:Bi-Data-	B14	RS-232:DSR RS-422:N/A RS-485:N/A	C14	RS-232:RX RS-422:TX+ RS-485:Bi-Data+
A15	RS-232:RTS RS-422:N/A RS-485:N/A	B15	RS-232:TX RS-422:RX+ RS-485:N/A	C15	RS-232:CTS RS-422:N/A RS-485:N/A
A16	RS-232:DTR RS-422:RX- RS-485:N/A	B16	RS-232:RI RS-422:N/A RS-485:N/A	C16	CRT:Red
A17	CRT:Green	B17	CRT:Blue	C17	CRT:DDC Data
A18	CRT:DDC Clock	B18	CRT:Hsync	C18	CRT:Vsync

A19	CRT: +5V	B19	Audio:Plug Detection	C19	Ground
A20	Audio:Right Out	B20	Audio:left Out	C20	Audio:Ground
A21	USB:Port5+	B21	USB:Port5-	C21	USB:Port5,6 +5V
A22	USB:Port6+	B22	USB:Port6-	C22	USB:Port5,6 +5V
A23	USB:Port7+	B23	USB:Port7-	C23	USB:Port7,8 +5V
A24	USB:Port8+	B24	USB:Port8-	C24	USB:Port7,8 +5V
A25	SATA: Port3 TX+	B25	SATA: Port3 TX-	C25	Ground
A26	SATA: Port3 RX-	B26	SATA: Port3 RX+	C26	Ground
A27	Fan2 Speed Detection	B27	Fan2 Speed Control	C27	Ground
A28	SATA: Port4 TX+	B28	SATA: Port4 TX-	C28	Ground
A29	SATA: Port4 RX-	B29	SATA: Port4 RX+	C29	Ground
A30	Ground	B30	CPU +12V	C30	Ground
A31	CPU +12V	B31	CPU +12V	C31	Ground
A32	CPU +12V	B32	CPU +12V	C32	Ground

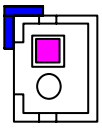
J3 - CRT



J4 - COM Port 2 (RS-232)

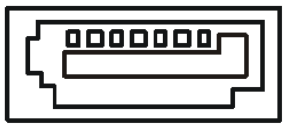


J5 - External Speak Left Channel

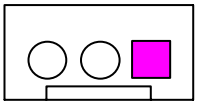


Pin#	Description
1	Left Channel signal
2	GND

J6 - SATA 1

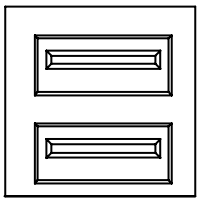


J7 - Fan 1

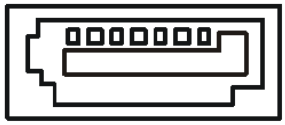


Pin#	Description
1	GND
2	FAN1_OUT
3	FAN1_IN

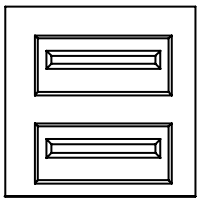
J8 - USB Port 4,5



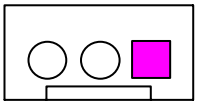
J9 - SATA 2



J10 - USB Port 6,7



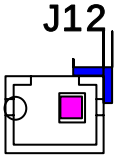
J11 - Fan 2



Pin#	Description

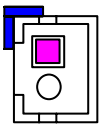
1	GND
2	FAN2_OUT
3	FAN2_IN

J12 - Touch / Screen power



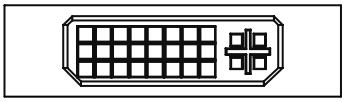
Pin#	Description
1	+5VS
2	GND

J13 - External Speak Right Channel

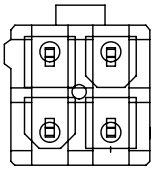


Pin#	Description
1	Right Channel signal
2	GND

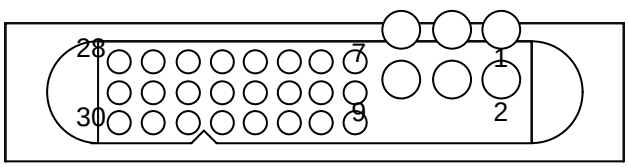
J14 - DVI



J15 - ATX-12V



J16 - Docking Interface 2



Pin#	Description	Pin#	Description	Pin#	Description
1	+12V_CPU	11	DVI_D1+	21	DVI_HPDET

2	N/C	12	DVI_D2+	22	DVI_CLK-
3	GND	13	GND	23	N/C
4	N/C	14	GND	24	N/C
5	N/C	15	GND	25	N/C
6	N/C	16	DVI_+5VS	26	N/C
7	DVI_D0-	17	DVI_DDCCLK	27	N/C
8	DVI_D1-	18	DVI_DDCDAT	28	N/C
9	DVI_D2-	19	DVI_CLK+	29	N/C
10	DVI_D0+	20	GND	30	N/C